

# TeachMe Academy

## CA – Foundation Accounts Marathon Batch

Revise this Handwritten Summary Notes of Accounts by watching Lectures on YouTube Channel - CMA CS Rohan Nimbalkar.



Pendrives are available for Foundation and intermediate Accounts at:-

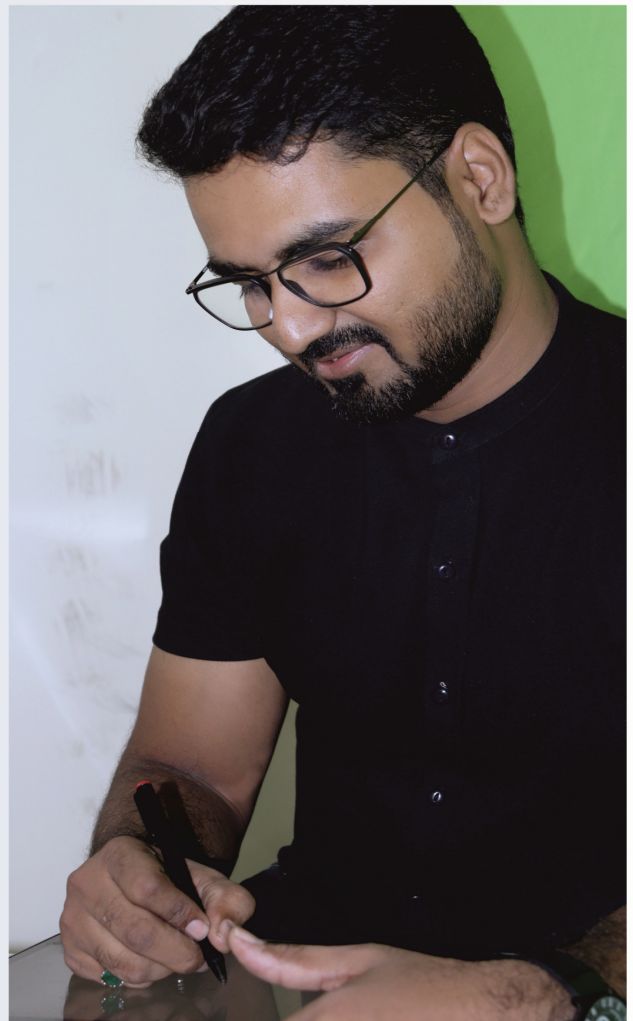
[www.teachmeacademy.in](http://www.teachmeacademy.in)



(88887 88889)

### Other Videos

Watch law Marathon Video with Summary Notes on YouTube channel



CMA, CS Rohan Nimbalkar

# CA – Foundation

## Principles and Practice of Accounting

### Index

<b>Sr. No.</b>	<b>Chapter</b>	<b>Page No.</b>
<b>1</b>	<b>Accounting Theory &amp; Concepts</b>	<b>1</b>
<b>2</b>	<b>Financial Statements of NPO</b>	<b>22</b>
<b>3</b>	<b>Final Accounts</b>	<b>34</b>
<b>4</b>	<b>Bank Reconciliation Statement</b>	<b>46</b>
<b>5</b>	<b>Capital Revenue Expenditure</b>	<b>54</b>
<b>6</b>	<b>Rectification of Errors</b>	<b>56</b>
<b>7</b>	<b>Consignment</b>	<b>71</b>
<b>8</b>	<b>Partnership Account</b>	<b>82</b>
<b>9</b>	<b>Inventories</b>	<b>108</b>
<b>10</b>	<b>Bill of Exchange</b>	<b>118</b>
<b>11</b>	<b>Average Due Date</b>	<b>129</b>
<b>12</b>	<b>Account Current</b>	<b>134</b>
<b>13</b>	<b>Depreciation</b>	<b>137</b>
<b>14</b>	<b>Sale of Goods on approval basis</b>	<b>147</b>
<b>15</b>	<b>Issue Forfeiture of Shares &amp; Issues of Debentures</b>	<b>154</b>





# ACCOUNTING POLICY.

- SLM or straight line method.
- WDV : IF every year efficiency going on decrease then use WDV method.

$$\begin{aligned} \text{Accounting Policy} &= \text{Accounting Principle} + \text{Methods of applying such principles.} \\ &= \text{Depreciation} + \text{SLM / WDV.} \end{aligned}$$

<u>SLM</u> ↓	<u>WDV</u> ↓
A      10,00,000	B      10,00,000
(-) Dep. 10% - <u>1,00,000</u>	(-) Dep. 10% <u>1,00,000</u>
9,00,000	9,00,000
(-) Dep 10% <u>1,00,000</u>	(-) Dep 10% <u>90,000</u>
8,00,000	8,10,000
(-) Dep 10% <u>1,00,000</u>	(-) Dep. 10% <u>81,000</u>
7,00,000	7,29,000

IF change in accounting policy from SLM to WDV.  
 Change in depreciation with prospective effect.



- Prospective Effect: Making changes in amount for future period.
- Retrospective Effect: Making changes in amount from the beginning.

ACCOUNTING ESTIMATE  
(Prediction).

Bad debts : 12,000  
(+) New bad-debts 5,000  
(+) New provision :  
(-) Old provision for 10,000  
doubtful debts \_\_\_\_\_  
7,000.

- Required In :
- 1) All Provisions
  - 2) Life of Asset
  - 3) Scrap value of asset etc.

• IF there is change in accounting estimates then Prospective Effect shall be given.

e.g. Mr. X purchased machinery for ₹ 10,00,000 estimated useful life is 10 years at the time of purchase on 1st April 2014.



In the 7<sup>th</sup> year it came to know inspection asset that this asset will be working only for total 8 years. Calculate depreciation for 7<sup>th</sup> & 8<sup>th</sup> year. (SLM Method).

→ Cost of Asset = 10,00,000. Dep<sup>n</sup> = 10,00,000  
 on 1-4-2014 (-) 10 yrs.

Depreciation =  $\frac{10,00,000}{10 \text{ yrs}}$  = 1,00,000

(-) Dep. of 6 years = 10,00,000  
 $1,00,000 \times 6$  = 6,00,000  
 1-4-2020. 4,00,000.

Change in accounting estimate Revised Dep<sup>n</sup>  
4,00,000  
2 yrs

(-) Dep<sup>n</sup> 7<sup>th</sup> year =  $\frac{2,00,000}{2}$  = 2,00,000

(-) Dep<sup>n</sup> 8<sup>th</sup> year =  $\frac{2,00,000}{2}$   
NIL.



\* Substance Overform:

Consider reality over its legal form.

Eg. 1) In case of Hire Purchase, Initially it is Rental agreement and it will be treated as sale once all the installments are paid. But as per accounting it is treated as sale because ultimate intention of this agreement is to sale.

2) If advance taken for sale of land (any fixed assets) on 15th March, 2019 but legal formalities will be completed on 20th April, 2019. In this case this is not sale as per law on 31st March but as per accounting this shall be treated as sale and land should not be shown on Asset side.

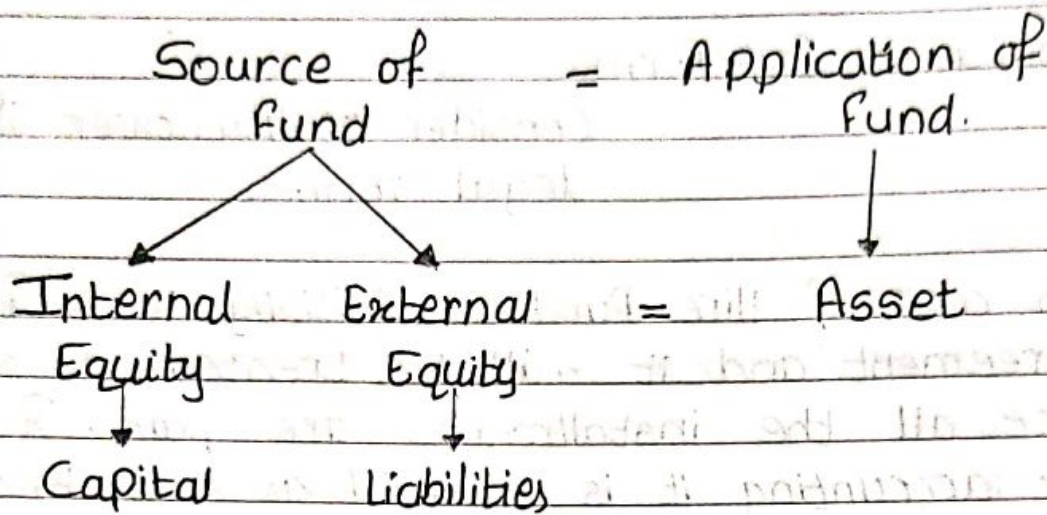
• ACCOUNTING EQUATION :-

$$A - L = C$$

Balance Sheet

Liabilities	Assets
Capital ← 5L	→ 5L
Loan ←	





$Capital + Liabilities = Assets$
$\therefore Capital = Assets - Liabilities$

$C = A - L$
-------------

(+) Incomes  
 (-) Expenses

• Dual Aspect :-

→ Liability ↑    Assets ↑  
    Liability ↓    Assets ↓    } Direct Relation

→ Assets ↑    Assets ↓  
    Liability ↑    Liability ↓    } Indirect Relation



- Contingent : Depends on happening or non-happening of future events.

## CONTINGENT

↓  
IF result will be outflow of benefit

↓  
Contingent Liabilities

↓  
- Disclose it in Notes to A/c

↓  
- E.g:

- 1) Bills Discounted
- 2) Suit (case) filed by outsiders on organisation.

↓  
IF result will be inflow of benefit.

↓  
Contingent Assets.

↓  
- No disclosure in Notes to A/c.

↓  
- Can be disclosed in Board of Directors Reports.

↓  
- E.g:-

- 1) Suit filed by organisation on outsiders.

• Provisions shall be recognised if all conditions are satisfied :-

- 1) Present obligation
- 2) Expected outflow of Benefit
- 3) Reliable estimation is available.

• IF one or two conditions are not fulfilled then it is contingent liability.

Eg. :- Provisions for Taxation.

## ACCOUNTING STANDARDS

Accounting standards :- Rules & Regulations issued by ICAI.

Self Generated  
Goodwill

Never Recorded

Issued by accounting  
standard Board (ASB).  
[set up by ICAI]

\* Impairment :- Asset की Value कम होना.



• Accounting Standards Prescribes rules for:

1) Recognition :- पैशन कौन, अंदाजा लगाना की Transaction कौनसा है.

2) Measurement :- Amt. का अंदाजा लगाना

3) Presentation / Disclosure :- दिखाना

• Advantages of Accounting Standards:

1) Reduction in Variation:

e.g: AS-2 for Inventory allows FIFO method & Weighted Average Method.  
(LIFO and simple avg. method not allowed)

2) Improves Comparison:

3) AS demands additional information even which is not required by law.

• Limitations of Accounting Standards:

1) In case of disputes between law and AS then law will be applicable.



2) Variations are reduced but not completely eliminated.

3) No flexibility and involves rigidity.

\* 29 AS introduced from AS:8 has been deleted as AS:26 was available for rules of intangible assets.

AS:6 → Depreciation → deleted and merged with AS:10 → Property, Plant & Equipment.

## ACCOUNTING as MEASUREMENT DISCIPLINE:

- Money Measurement :-

↓  
Counting

→ All items which can be measured in terms of money shall be recorded.

→ Items which can not be converted in terms of money shall be ignored.

- Measurement Scale :-

Unit in which value is measured.  
example → Kilogram, litre, Meter etc.

- Suitability of Scale →

Other scales are not suitable for comparison, only money is suitable for comparison.

- Limitations of money as Measurement scale :-

1) Money is volatile in nature

2) Money has no universal applicability

₹ → India, \$ → USA



• Measurement Principles / Basis :

▷ Historical Cost : Purchase Price of Asset.

Historical / Purchase Cost

↓  
₹ 50,000

(-) 25% Dep<sup>n</sup>

37,500 →

WDV / Book Value /

Carrying Value.

20,000 Selling Price →

Realisable Value

85,000 → Current Cost







- \* Limitations of money as measurement scale:
  - 1) Money has no universal applicability.  
e.g. In India it is ₹ & America \$.
  - 2) Money is volatile in nature.

\* Comparison is possible only if money is used as measurement scale. Therefore, money is accepted as measurement scale.

• Recording:

- \* In journal or subsidiary books.
- \* In chronological order. (According to time/date wise)

• Classification:

- \* Analytical order is followed.
- \* Headingwise.

• Summerising:

- 1) Trial balance
  - 2) Trading & P&L A/c | Income & Exp.
  - 3) Balance Sheet. / Asset & Liability.
  - 4) Cash flow Statement
  - 5) Notes of A/c.
- } Financial Statement

• Analysing:

- Detail study.
- \* Calculation of ratio.



• Interpretation:



Why?

\* We will try to find out reason behind result of organisation.

• Communication:

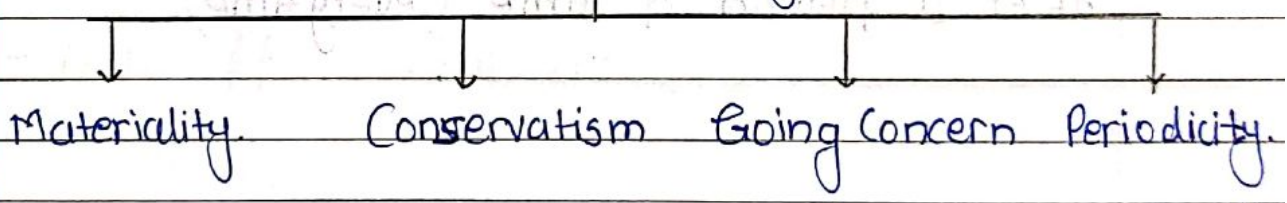
\* Internal Users:

BOD, Managers etc.

\* External Users:

Employee, govt., customers etc.

• General Accepted Accounting Principles (GAAP's)



• Materiality:

Item is treated as material if it has effects on decision making of user of accounting information.

Example: Punching Machine, Stepler is asset by nature, but it is treated as expenses because this items are not material.

\* (Matching Principle)



28/3/19.

- Conservatism:  
Expect and record all future losses but don't expect and record future gains.

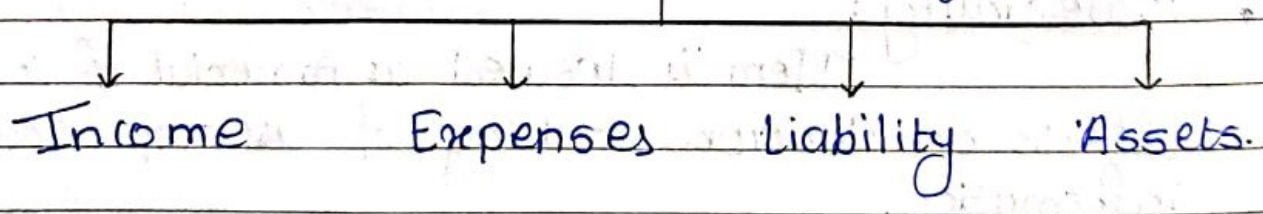
Effects:

- 1) Assets are shown at Actual Amount.
- 2) Provisions are created.
- 3) Stock is valued at cost price or market price whichever is less.

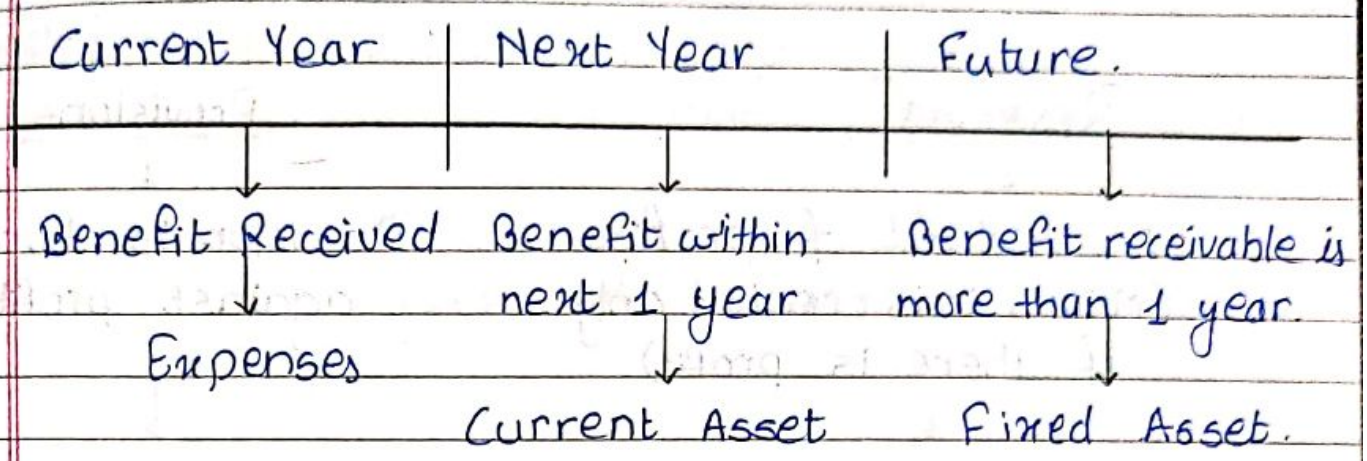
- Going Concern:  
Assumes that the life of business is long lasting.

- Periodicity:  
To calculate the profit or loss after a period of time (everytime)

Elements of Accounting



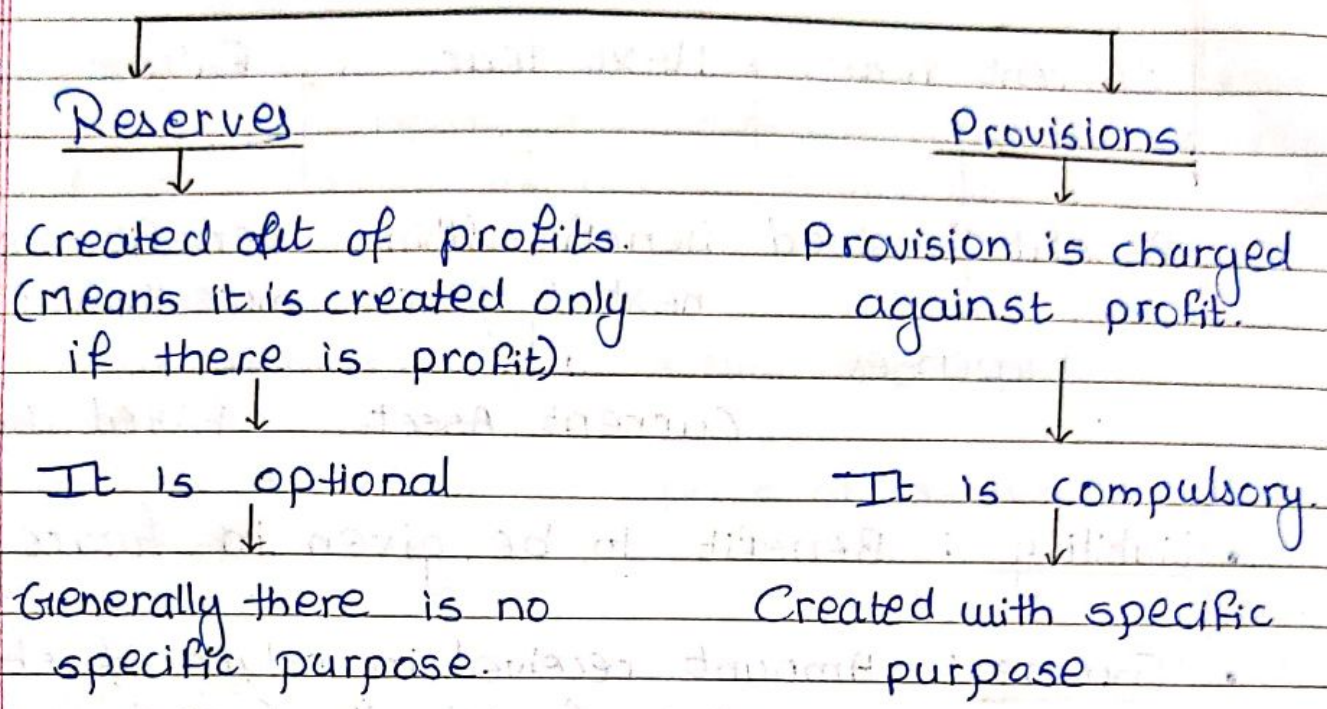
- Assets:  
Assets are the things which gives benefit in future.



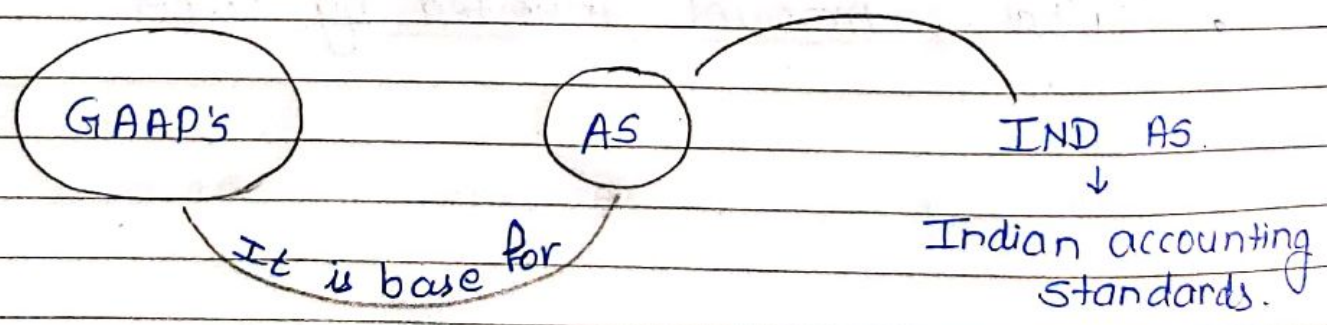
- Liability : Benefit to be given in future.
- Income : Amount received in return of obligation completion of obligation (work) (Benefit given)
- Expenses : Things which gives immediate benefit. (Benefit Received)
- Trade off = Balancing.
- Capital : Amount invested by owner.



1/4/2019



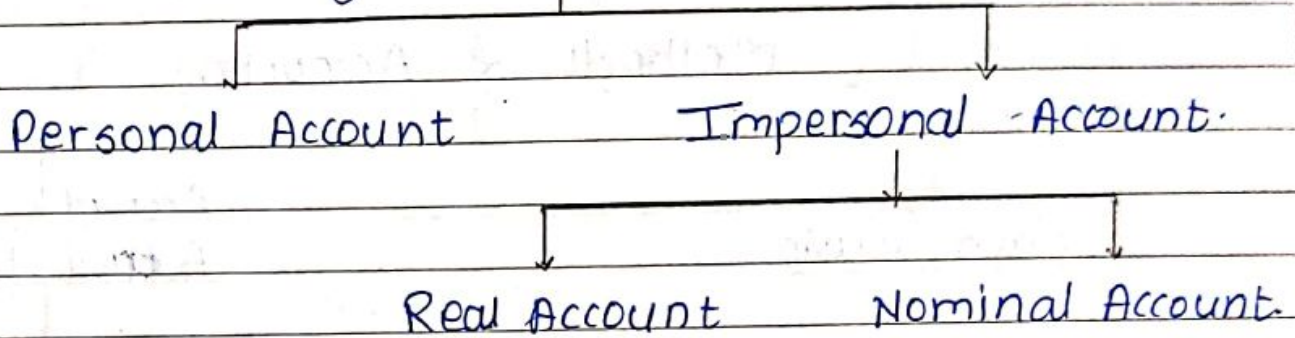
- GAAP's → General Accepted Accounting Principles
- AS → Accounting Standards.
- IND AS → Indian Accounting Standards.
- ICAI → Indian Chartered Accountant's Institute.





- Father of Accounting : Luca Pacioli.  
(founder of double entry system)

### Types of Accounts



- Personal Account : In case of Incomplete transaction.
  - Dr - the giver receiver.
  - Cr - the receiver giver

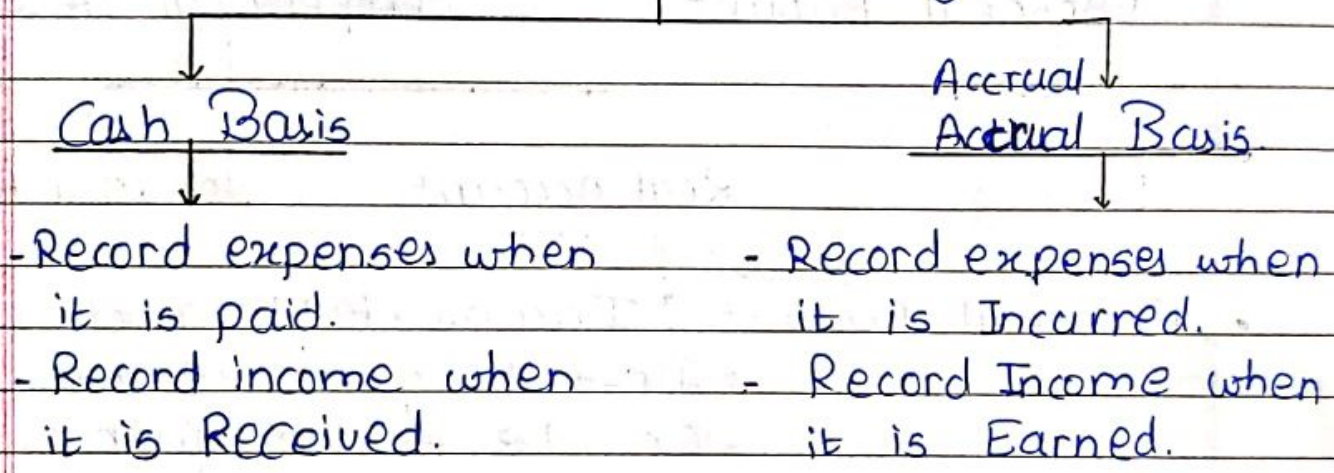
- Impersonal Account : Complete Transaction.

Real Account : Dr. what comes in  
(which has existence) Cr. what goes out.  
e.g. Goodwill

Nominal Account : Dr. all expenses and losses  
(which has existence for limited period of time). Cr. all incomes & gains.  
e.g. salary.

If transaction is incomplete or previous incomplete transaction is completed then there is personal account.

### Methods of Accounting



Accrual basis :- Merchantile system.

- Record all current year expenses whether they are paid or not.

- Also known as merchantile system
- Income tax act and companies act recommends to follow accrual basis.

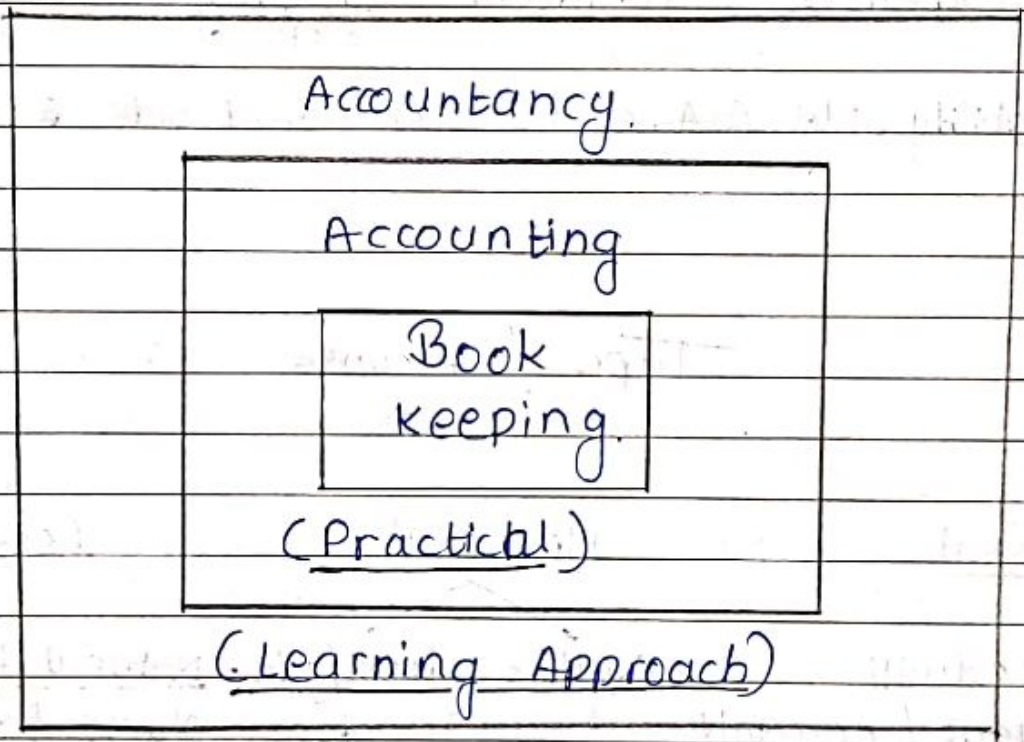


- Matching Principle:-

Record all incomes and expenses for only current year and don't record expenses & incomes of next or previous year.

Example:

Profit / loss for 2019-20 → Income for 2019-20 - Expenses for 2019-20

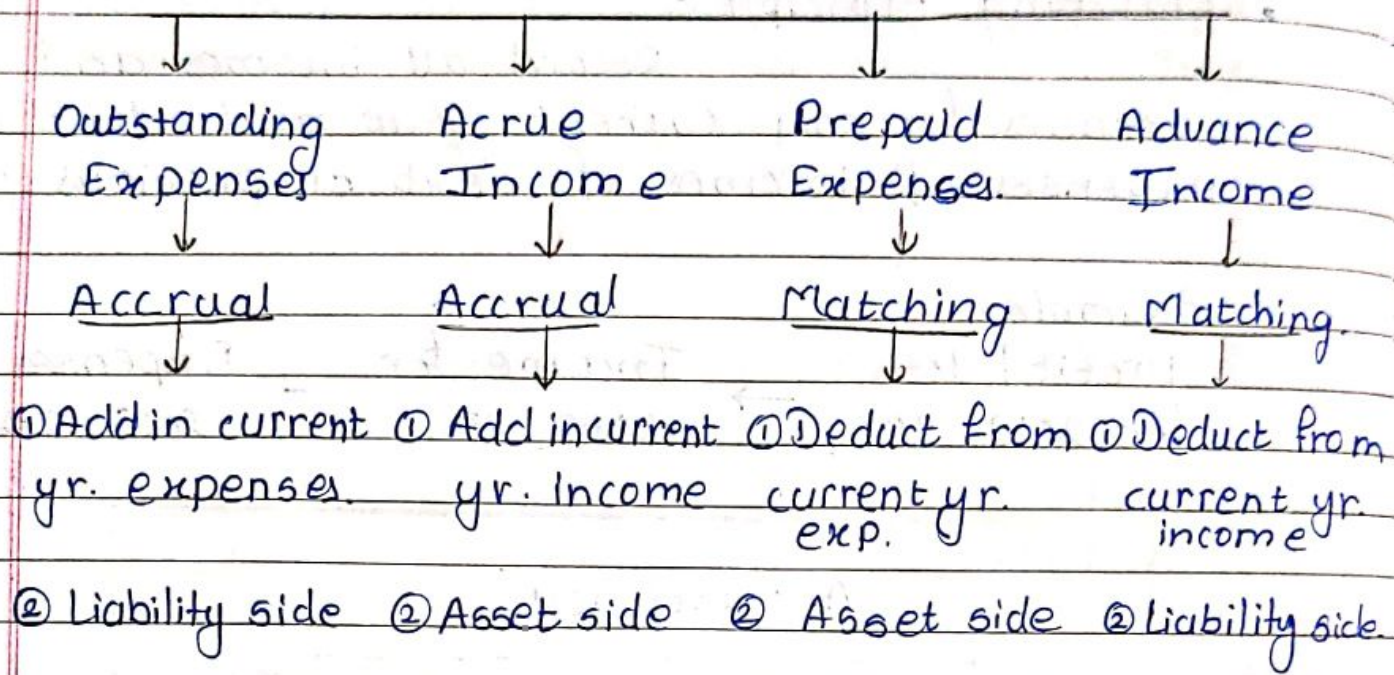


- Accountancy ∴ Contains rules, principles which explains how to do accountancy.

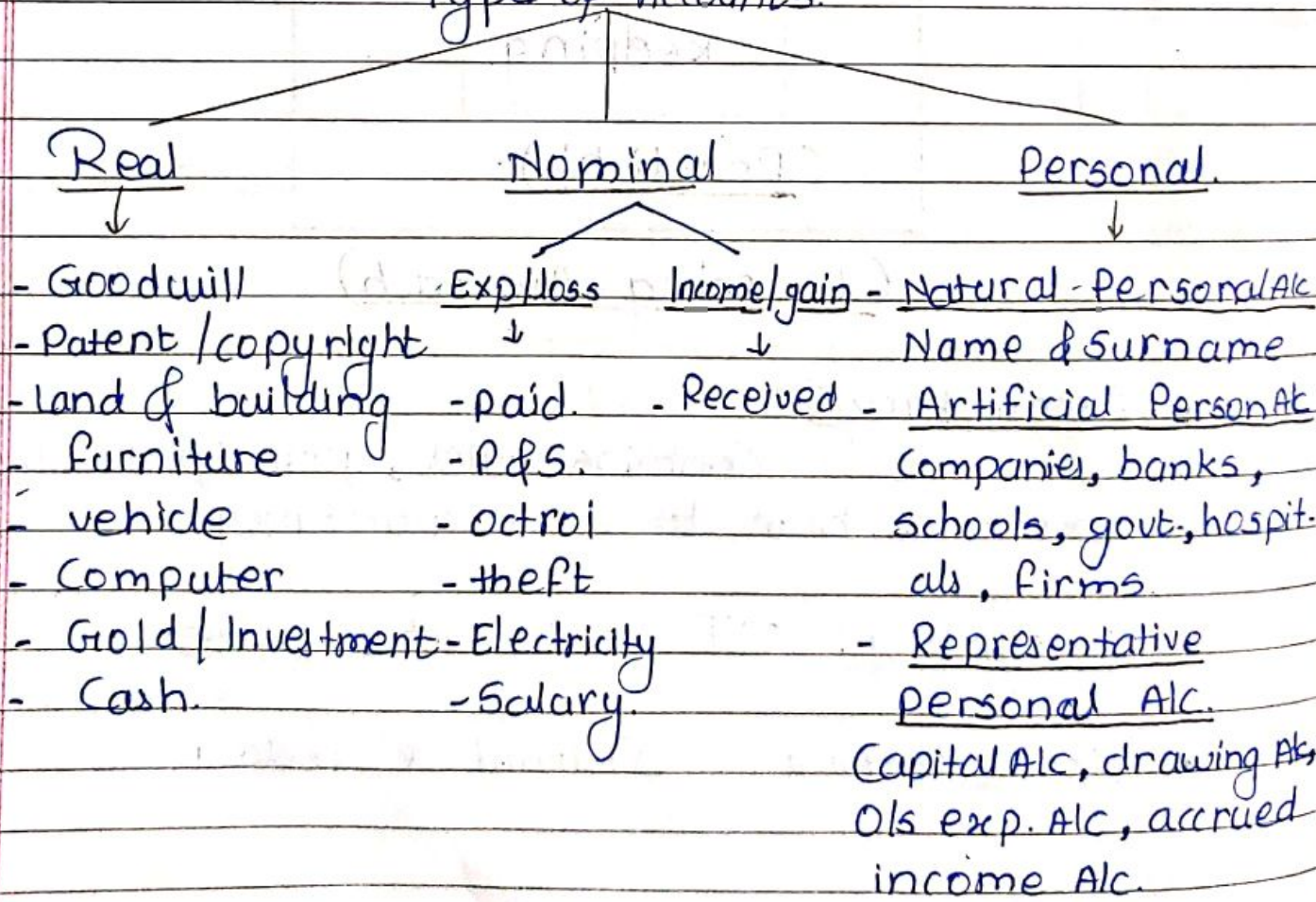
- Accounting: It is the actual process.

- Book-keeping: Journal & Ledger.





### Types of Accounts.





# NON PROFIT ORGANISATION.

1) Profit Organisation  
↓

1) Profit & Loss A/c

Non-Profit Org.  
↓

- Income & Expenditure A/c  
[It is also based on periodic matching and accrual concept]

- Profit : Known as 'surplus' for NPO

- Loss : Known as 'deficit' for NPO.

2) Balance Sheet

Balance Sheet  
(Same Principle)

Additionally  
Cash Book

Receipt and Payment A/c

- Difference between Income and Expenditure A/c and Receipt and Payment A/c.

I & E A/c  
↓

- Accrual principle strictly followed

R & P A/c.  
↓

- Accrual की ऐसी की ऐसी.  
Accrual not followed



### Income & Expenditure

### Receipt and Payment

- Only revenue expenditure are recorded. (Capital exp. are shown as asset)

- Receipt and Payment recorded irrespective of whether it is capital or revenue item.

• Example:

Both payment side

- 1) Salary Paid → Dr. of I&E
- 2) Building purchased → Balance sheet (not in I&E)  
(only dep. on building is debited to I & E)

3) Sports material consumed is recorded here on Dr. of I & E

- Payment for sports material is recorded here (irrespective of use).

- It records Income & Exp. of current year only.  
∴ Advance income and prepaid exp. are deducted/ excluded

- It records all receipt and payment including Advance income and prepaid exp. but outstanding exp. & accrued incomes are deducted/ excluded because there is no Receipt or Payment.

सोचो :- Expenditure or Income इस साल का है या नहीं.

सोचो :- Receipt या Payment हो गया है या नहीं.



• Common Adjustments:

1) Subscription (Income for NPO)

Subscription Received (Given in R & P Alc)	xxx	↑ Follow Reverse for Receipt of Subscription (+ = - & - = +)
(-) Subscription outstan- ding last year	xxx	
(-) Advance subscription in current year (belong to next year)	xxx	
(+) O/S subscription of current year	xxx	
(+) Advance subscription received in last year	xxx	
<hr style="border-top: 3px double black;"/>		
Subscription income of current year	<u>xxx</u>	

↓  
 This format is applicable  
 for expenses also.

2) Entrance Fees or Admission Fees:-

If nothing is specified then treated as revenue income (credit I & E Alc)

3) Life Membership fees:

Added in capital fund.



4) Donation Received:

↓  
For Specific Purpose

↓  
for Example: It is recvd  
for building

↓  
Show on liability side  
irrespective of fund.

↓  
For General Purpose.

Donation of  
small amt. or  
to meet

revenue exp.

↓  
Cr. I & E Alc

IF Question  
is silent

↓  
Capital receipt

↓  
Added in  
capital fund.

5) Legacies:

Added to Capital fund.

6) Special Fund:

Show it on liability & income received by  
investing such asset also credited to special fund.

7) Sale of Asset:

Profit or loss on sale transferred to  
I & E Alc.

8) Sale of News paper.

Cr. Income & Expenditure Alc



g) Material Consumed.  
 (Dr. to I & E A/c)

Paid to creditors for sports material.

Opening stock	xxx
(+) Purchase	xxx
cash + credit	
(IF credit purchase is missing then prepare creditors A/c & find out B.P)	
(-) Closing stock	<u>(xxx)</u>
<u>Material consumed</u>	<u>xxx</u>

Dr.		Creditors A/c		Cr.	
To Bank / cash (B.P)*	xxx	By Bal. b/d		xxx	
To Balance c/d. (closing)	xxx	By purchase (WN. given below) ↓ not given directly)		xxx	
	xxx				xxx

How to calculate Purchase

Material Consumed	xxx
(+) Closing Stock	xxx
(-) Opening Stock	<u>(xxx)</u>
Total Purchase	<u>xxx</u>
(-) Cash purchase	<u>(xxx)</u>
Credit Purchase	<u>xxx</u>

10) IF opening capital fund is not given / missing then- Prepare opening Balance sheet to find out opening balance capital as Balancing figure.

- Depreciation may be given directly in amount or percentage. Otherwise we can calculate it as follows. (Same as material consumed)

Opening	xxx
(+) Purchase / Addition to assets	xxx
(-) Sale (if any)	xxx
(-) Closing Balance	xxx
	<hr/>
<u>Depreciation</u>	<u>xxx</u>



# Financial statements of Not for Profit Organizations

Question No. 1

RTP May 2018 & Mock Test April 2019 (20 MARKS)

Smith Library Society showed the following position on 31<sup>st</sup> March, 2017:

Balance Sheet as on 31<sup>st</sup> March, 2017

Liabilities	₹	Assets	₹
Capital fund	7,93,000	Electrical fittings	1,50,000
Expenses payable	7,000	Furniture	50,000
		Books	4,00,000
		Investment in securities	1,50,000
		Cash at bank	25,000
		Cash in hand	<u>25,000</u>
	<u>8,00,000</u>		<u>8,00,000</u>

The receipts and payment account for the year ended on 31<sup>st</sup> March, 2018 is given below:

	₹		₹
To Balance b/d		By Electric charges	7,200
Cash at bank 25,000		By Postage and stationary	5,000
Cash in hand <u>25,000</u>	50,000	By Telephone charges	5,000
To Entrance fee	30,000	By Books purchased	60,000
To Membership subscription	2,00,000	By Outstanding expenses paid	7,000
To Sale proceeds of old papers	1,500	By Rent	88,000
To Hire of lecture hall	20,000	By Investment in securities	40,000
To Interest on securities.	8,000	By Salaries	66,000
		By Balance c/d	
		Cash at bank	20,000
		Cash in hand	<u>11,300</u>
	<u>3,09,500</u>		<u>3,09,500</u>

You are required to prepare income and expenditure account for the year ended 31<sup>st</sup> March, 2018 and a balance sheet as at 31<sup>st</sup>, March, 2018 after making the following adjustments:

Membership subscription included ₹ 10,000 received in advance. Provide for outstanding rent ₹ 4,000 and salaries ₹ 3,000.

Books to be depreciated @ 10% including additions. Electrical fittings and furniture are also to be depreciated at the same rate.

75% of the entrance fees is to be capitalized.

Interest on securities is to be calculated @ 5% p.a. including purchases made on 1.10.2017 for ₹ 40,000.

**Answer****Smith Library Society Income and Expenditure Account for the year ended 31<sup>st</sup> March, 2018**

Dr.					Cr.
Expenditure	₹	₹	Income		₹
To Electric charges		7,200	By Entrance fee (25% of ₹ 30,000)		7,500
To Postage and stationary		5,000			
To Telephone charges		5,000	By Membership subscription	2,00,000	
To Rent	88,000			<u>10,000</u>	1,90,000
Add: Outstanding	<u>4,000</u>	92,000	Less: Received in advance		
To Salaries	66,000		By Sale proceeds of old papers		1,500
Add: Outstanding	<u>3,000</u>	69,000	By Hire of lecture hall		20,000
To Depreciation (W.N.1)			By Interest on securities (W.N.2)	8,000	
Electrical fittings	15,000		Add: Receivable	<u>500</u>	8,500
Furniture	5,000		By Deficit- excess of expenditure over income		16,700
Books	<u>46,000</u>	66,000			
		<u>2,44,200</u>			<u>2,44,200</u>

**Balance Sheet of Smith Library Society as on 31st March, 2018**

Liabilities	₹	₹	Asset	₹	₹
Capital fund	7,93,000		Electrical fittings	1,50,000	
Add: Entrance fees	<u>22,500</u>		Less: Depreciation	<u>(15,000)</u>	1,35,000
	8,15,500		Furniture	50,000	
Less: Excess of expenditure over income	<u>(16,700)</u>	7,98,800	Less: Depreciation	<u>(5,000)</u>	45,000
<b>Outstanding expenses:</b>			Books	4,60,000	
Rent	4,000		Less Depreciation	<u>(46,000)</u>	4,14,000
Salaries	<u>3,000</u>	7,000	<b>Investment:</b>		
Membership subscription in advance		10,000	Securities	1,90,000	
			Accrued interest	500	1,90,500
			Cash at bank		20,000
			Cash in hand		11,300
		<u>8,15,800</u>			<u>8,15,800</u>



Working Notes:

### 1. Depreciation

	₹
Electrical fittings 10% of ₹ 1,50,000	15,000
Furniture 10% of ₹ 50,000	5,000
Books 10% of ₹ 4,60,000	46,000

### 2. Interest on Securities

	₹	₹
Interest @ 5% p.a. on ₹ 1,50,000 for full year	7,500	
Interest @ 5% p.a. on ₹ 40,000 for half year	<u>1,000</u>	8,500
Less: Received		<u>(8,000)</u>
Receivable		500

## Question No. 2

RTP Nov. 2018

The following information of M/s. TT Club are related for the year ended 31<sup>st</sup> March, 2018:

(1)

Balances	As on 01-04-2017 (₹)	As on 31-3-2018 (₹)
Stock of Sports Material	75,000	1,12,500
Amount due for Sports Material	67,500	97,500
Subscription due	11,250	16,500
Subscription received in advance	9,000	5,250

(2) Subscription received during the year ₹ 3,75,000

(3) Payments for Sports Material during the year ₹ 2,25,000

You are required to:

(A) Calculate the amount of Subscription and Sports Material that will appear in Income & Expenditure Account for the year ended 31.03.2018 and

(B) Also show how these items would appear in the Balance Sheet as on 31.03.2018.

**Answer****Subscription for the year ended 31.3.2018**

		₹
Subscription received during the year		3,75,000
Less: Subscription receivable on 1.4.2017	11,250	
Less: Subscription received in advance on 31.3.2018	<u>5,250</u>	<u>(16,500)</u>
		3,58,500
Add: Subscription receivable on 31.3.2018	16,500	
Add: Subscription received in advance on 1.4.2017	<u>9,000</u>	<u>25,500</u>
Amount of Subscription appearing in Income & Expenditure Account		<u>3,84,000</u>

**Sports material consumed during the year end 31.3.2018**

	₹
Payment for Sports material	2,25,000
Less: Amounts due for sports material on 1.4.2017	<u>(67,500)</u>
	<b>1,57,500</b>
Add: Amounts due for sports material on 31.3.2018	<u>97,500</u>
Purchase of sports material	<u>2,55,000</u>
Sports material consumed:	
Stock of sports material on 1.4.2017	75,000
Add: Purchase of sports material during the year	<u>2,55,000</u>
	<b>3,30,000</b>
Less: Stock of sports material on 31.3.2018	<u>(1,12,500)</u>
Amount of Sports Material appearing in Income & Expenditure Account	<b>2,17,500</b>

**Balance Sheet of M/s TT Club For the year ended 31<sup>st</sup> March, 2018 (An extract)**

Liabilities	₹	Assets	₹
Unearned Subscription	5,250	Subscription receivable	16,500
Amount due for sports material	97,500	Stock of sports material	1,12,500



## Question No. 3

RTP May 2019

The Receipts and Payments account of Trustwell Club prepared on 31<sup>st</sup> March, 2018 is as follows:

**Receipts and Payments Account**

Receipts		Amount ₹	Payments	Amount ₹
To Balance b/d		450	By Expenses (including For sports material ₹ 2,700)	6,300
To Annual Income from Payment Subscription	4,590			
Add: Outstanding of last year received this year	<u>180</u>		By Loss on Sale of Furniture (cost price ₹ 450)	180
	4,770		By Balance c/d	90,450
Less: Prepaid of last year	<u>90</u>	4,680		
To Other fees		1,800		
To Donation for Building		<u>90,000</u>		
		<u>96,930</u>		<u>96,930</u>

Additional information:

- Trustwell club had balances as on 1.4.2017 :-  
Furniture ₹ 1,800; Investment at 5% ₹ 27,000;  
Sports material ₹ 6,660;
- Balance as on 31.3.2018 :  
Subscription Receivable ₹ 270;  
Subscription received in advance ₹ 90;  
Stock of sports material ₹ 1,800.

Do you agree with above Receipts and Payments account? If not, prepare correct Receipts and Payments account and Income and Expenditure account for the year ended 31st March, 2018 and Balance Sheet on that date.

**Answer**

**Corrected Receipts and Payments Account of Trustwell Club for the year ended 31st March, 2018**

Receipts	₹	Amount ₹	Payments	Amount ₹
To Balance b/d		450	By Expenses (₹ 6,300 - ₹ 2,700)	3,600
To Subscription Annual Income	4,590		By Sports Material	2,700
Less: Receivable as on 31.3.2018	270		By Balance c/d (Cash in Hand and at Bank)	90,720
Add: Advance received for the year 2018-2019	90			
Add: Receivable as on 31.3.2017	180			
Less: Advance received as on 31.3.2017	90	4,500		
Other Fees		1,800		
To Donation for Building		90,000		
To Sale of Furniture		<u>270</u>		
		<b>97,020</b>		<b>97,020</b>

## Income and Expenditure Account of Trustwell club for the year ended 31st March, 2018

Expenditure		Amount	Income	Amount
		₹		₹
To Sundry Expenses		3,600	By Subscription	4,590
To Sports Material			By Other fees	1,800
Balance as on 1.4.2017	6,660		By Interest on investment	1,350
Add: Purchases	2,700		(5% on ₹ 27,000)	
Less: Balance as on 31.3.2018	<u>1,800</u>	7,560	By Deficit: Excess of Expenditure over Income	3,600
To Loss on sale of Furniture		180		
		<b>11,340</b>		<b>11,340</b>

## Balance Sheet of Trustwell club as on 31st March, 2018

Liabilities		Amount (₹)	Assets		Amount (₹)
Capital Fund	36,000		Furniture	1,800	
Less: Excess of Expenditure over Income	<u>3,600</u>	32,400	Less: Sold	<u>450</u>	1,350
Building Fund		90,000	5% Investment		27,000
Subscription Received in Advance		90	Interest Accrued on Investment		1,350
			Sports Material		1,800
			Subscription Receivable		270
			Cash in Hand and at Bank		<u>90,720</u>
		<b>1,22,490</b>			<b>1,22,490</b>

## Working Note:

## Balance Sheet of Trustwell Club as on 1st April, 2017

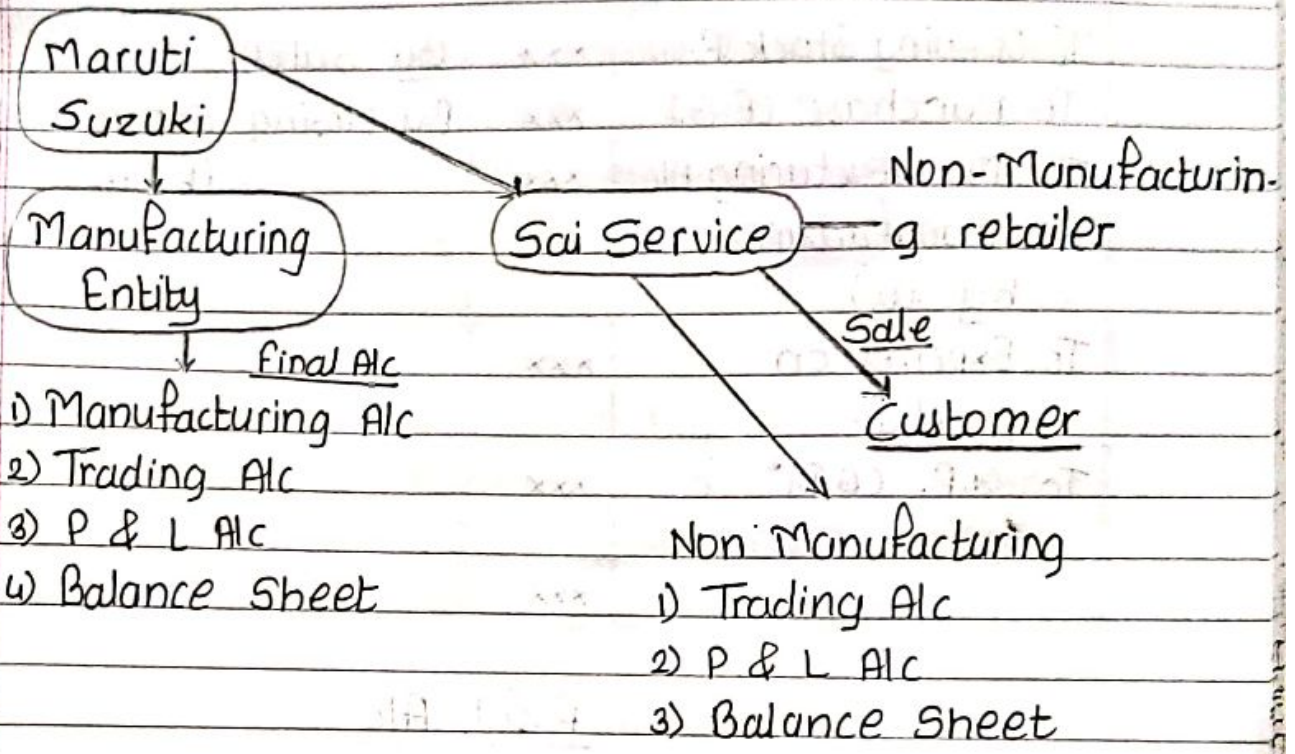
Liabilities	Amount	Assets	Amount
	₹		₹
Subscription Received in Advance	90	Furniture	1,800
Capital Fund	36,000	Investment	27,000
(Balancing Figure)		Sports Material	6,660
		Subscription Receivable	180
		Cash in Hand and at Bank	450
	<b>36,090</b>		<b>36,090</b>



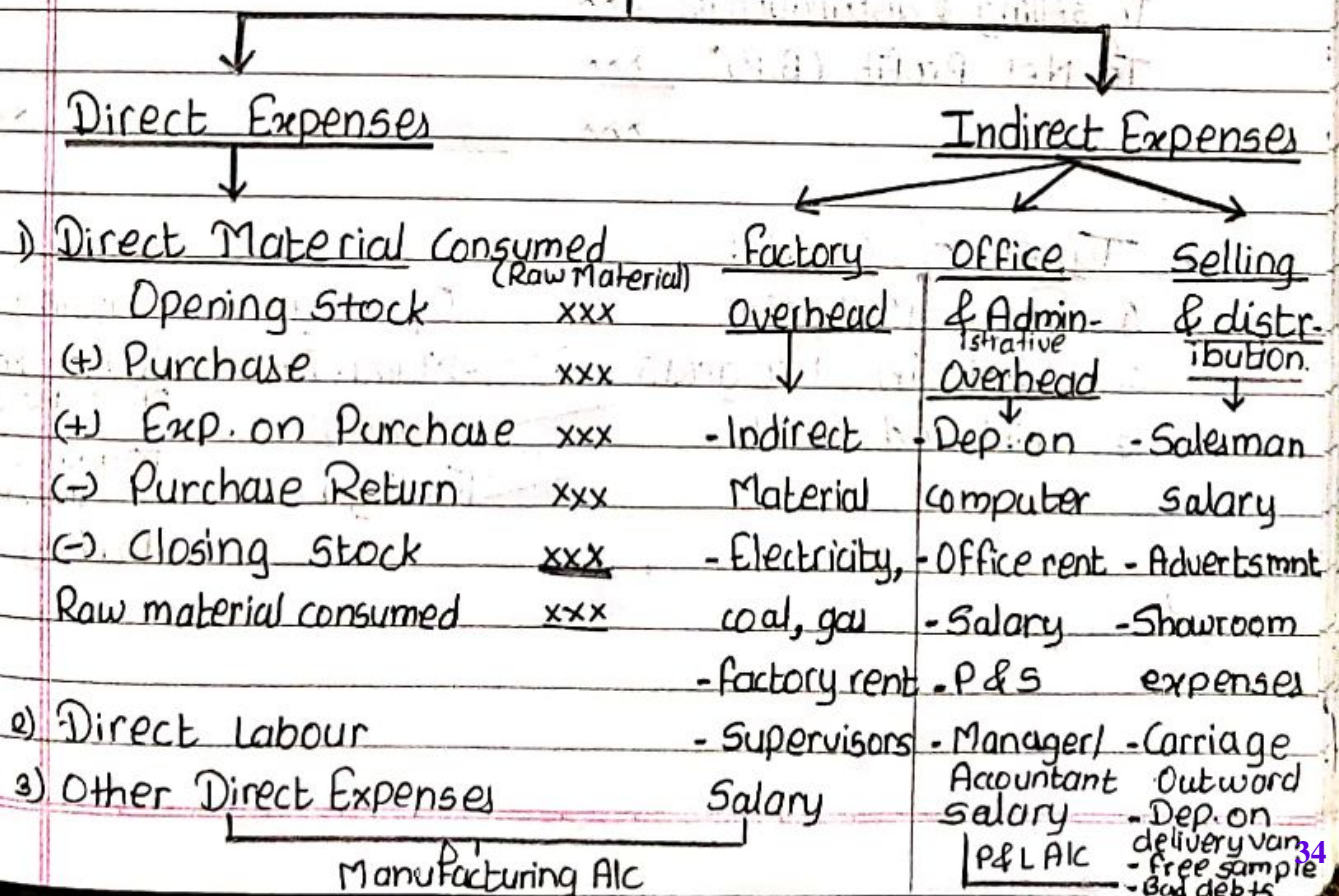
# FINAL ACCOUNT

Date: 21.8.19

(Sole Proprietorship)



## Types of Expenses





Trading Alc

Dr.

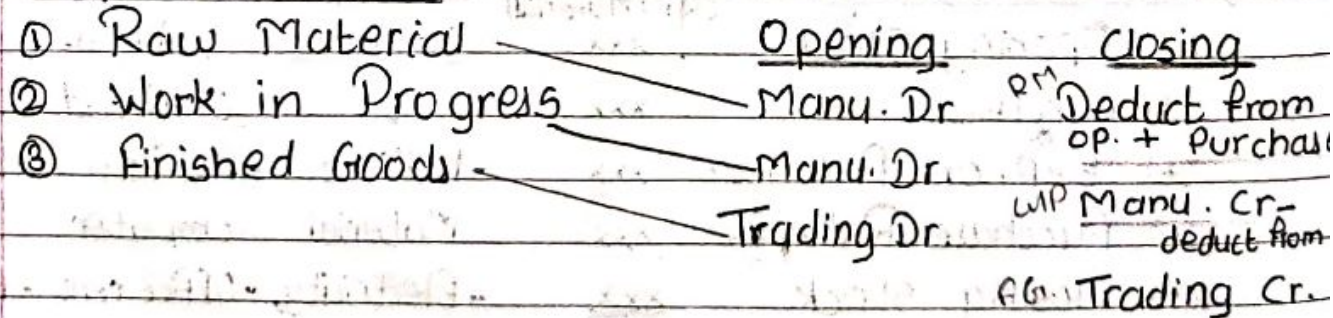
Cr.

To Opening Stock (F.G)	xxx	By Sales	xxx
To Purchase (F.G)	xxx	By Closing stock	xxx
To Manufacturing Alc (F.G. Manufactured by us)	xxx	(F.G.)	
To Expenses on purchase	xxx		
To G.P. (B.D)*	xxx		
	xxx		xxx

P & L Alc

To Office and Administr- ation expenses	xxx	By G.P.	xxx
To selling & distribution Alc	xxx		
To Net Profit (B.P)*	xxx		
	xxx		xxx

• Types of Goods:





d) Raw Material Consumed:

Opening Stock (RM)	xxx
(+) Purchase (RM)	xxx
(+) Exp. on purchase (RM)	xxx
(-) Purchase Return (RM)	xxx
(-) Closing (RM)	<u>xxx</u>

• Raw material Consumed xxxx

(+) Labour	xxx
(+) Factory Exp	xxx
(+) Opening WIP	xxx
(-) Closing Stock (WIP)	<u>(xxx)</u>

• Cost of goods manufact-  
ured / Produced xxx

(+) Opening stock of F.G.	xxx
(-) Closing stock of F.G.	<u>xxx</u>

• Cost of Goods Sold. xxx

(+) Gross Profit	<u>xxx</u>
<u>Sale</u>	<u>xxx</u>

23/8/19

- Goods used for purpose other than sale / Goods not sold (closing stock)

Entry

Adjustment

Free sample Alc — Dr  
(Advertisement)

P & L Alc — Dr

To Purchase Alc.

Trading Alc — Cr



P&L Alc  
 Periodicity  
 Matching  
 Accrual principle

Page No. \_\_\_\_\_  
 Date \_\_\_\_\_

Entry Adjustment

Free Sample Alc — Dr.	P & L Alc — Dr
Donation Alc — Dr.	P & L Alc — Dr
Asset Alc — Dr.	Balance sheet
loss by fire/Alc	
theft — Dr.	P & L Alc — Dr
Drawings Alc — Dr.	(-) From capital
Closing Stock/	
Goods in transit Alc — Dr.	Asset
To Purchase Alc.	Trading Alc. (Cr. side)

- Closing Stock always valued at cost or MP whichever is less. (Due to conservatism)

• Prepaid Expenses:

Entry  
 Prepaid Exp. Alc — Dr  
 To Bank Alc.

IF separate entry is not recorded for prepaid exp. then such expenses are debited to expenses Alc which is not correct.  
 1st Effect - deduct from exp  
 2nd - " - 1 - Show on prepaid exp. on Asset side.

• Advance Income

Bank Alc — Dr  
 To Advance  
 Income Alc.  
 (liab)

IF separate entry is not recorded then adv. income gets included in income Alc.  
 1st effect: Deduct from Income  
 2nd - " - : Show it on liab. side







Balance Sheet

IF answer is negative  
then cr. this amount  
to P & L Alc.

Debtors	xxx
(-) New bad-debts	xxx
(-) New RDD	xxx
	<u>          </u>

Debtors xxx

- Debtors : xxx
- (-) New Bad debts xxx
- (-) New Discount xxx
- xxx
- (-) Provision for  
    Bad - debts xxx
- xxx
- (-) Provision for discount xxx
- xxx

• Abnormal loss/ loss due to fire (Goods) :

(Assume loss- 10L)

Loss by fire Alc — Dr	10.00.000	-
To purchase Alc	-	10.00.000

Insurance Company Accepted claim of ₹ 8.00.000

Insurance Company Alc — Dr	8.00.000	-
P & L Alc — Dr	2.00.000	-
To loss by fire Alc	-	10.00.000



- Income Tax Paid:

Sole Proprietors



Tax paid is treated as drawing.

↓ Deduct From capital

Drawing Alc — Dr  
To Bank Alc

Company / Firm



Tax paid is treated as Business expenses.

↓ P&L Alc

Income Tax Alc — Dr  
To Bank Alc.

# Final accounts

Question No. 1 (Final Account & Rectification of Errors )

RTP May 2018, RTP Nov. 2019

The following are the balances as at 31st March, 2017 extracted from the books of Mr. XYZ.

	₹		₹
Plant and Machinery	19,550	Bad debts recovered	450
Furniture and Fittings	10,250	Salaries	22,550
Bank Overdraft	80,000	Salaries payable	2,450
Capital Account	65,000	Prepaid rent	300
Drawings	8,000	Rent	4,300
Purchases	1,60,000	Carriage inward	1,125
Opening Stock	32,250	Carriage outward	1,350
Wages	12,165	Sales	2,15,300
Provision for doubtful debts	3,200	Advertisement Expenses	3,350
Provision for Discount on debtors	1,375	Printing and Stationery	1,250
Sundry Debtors	1,20,000	Cash in hand	1,450
Sundry Creditors	47,500	Cash at bank	3,125
Bad debts	1,100	Office Expenses	10,160
		Interest paid on loan	3,000

Additional Information:

- Purchases include sales return of ₹2,575 and sales include purchases return of ₹1,725.
- Goods withdrawn by Mr. XYZ for own consumption ₹3,500 included in purchases.
- Wages paid in the month of April for installation of plant and machinery amounting to ₹450 were included in wages account.
- Free samples distributed for publicity costing ₹825.
- Create a provision for doubtful debts @ 5% and provision for discount on debtors @ 2.5%.
- Depreciation is to be provided on plant and machinery @ 15% p.a. and on furniture and fittings @ 10% p.a.
- Bank overdraft is secured against hypothecation of stock. Bank overdraft outstanding as on 31.3.2017 has been considered as 80% of real value of stock (deducting 20% as margin) and after adjusting the marginal value 80% of the same has been allowed to draw as an overdraft.

Prepare a Trading and Profit and Loss Account for the year ended 31st March, 2017, and a Balance Sheet as on that date. Also show the rectification entries.



## Answer

### Rectification Entries

	Particulars	Dr. Amount ₹	Cr. Amount ₹
(i)	Returns inward account.....Dr. Sales account.....Dr. To Purchases account To Returns outward account (Being sales return and purchases return wrongly included in purchases and sales respectively, now rectified)	2,575 1,725	2,575 1,725
(ii)	Drawings account.....Dr. To Purchases account (Being goods withdrawn for own consumption included in purchases, now rectified)	3,500	3,500
(iii)	Plant and machinery account.....Dr. To Wages account (Being wages paid for installation of plant and machinery wrongly debited to wages, now rectified)	450	450
(iv)	Advertisement expenses account.....Dr. To Purchases account (Being free samples distributed for publicity out of purchases, now rectified)	825	825

### Trading and Profit and Loss Account of Mr. XYZ for the year ended 31st March, 2017

Dr.	Amount	Amount	Cr.	Amount	Amount
	₹	₹		₹	₹
To Opening stock		32,250	By Sales	2,13,575	
To Purchases	1,53,100		Less: Sales return	<u>2,575</u>	2,11,000
Less: Purchases return	1,725	1,51,375	By Closing stock		
To Carriage inward		1,125	= 80,000 x 100/80 x 100/80		1,25,000
To Wages		11,715			
To Gross profit c/d		1,39,535			
		<b>3,36,000</b>			<b>3,36,000</b>
To Salaries		22,550	By Gross profit b/d		1,39,535
To Rent		4,300	By Bad Debts recovered		450
To Advertisement expenses		4,175			
To Printing and stationery		1,250			
To Bad debts		1,100			
To Carriage outward		1,350			
To Provision for doubtful					

debts 5% of ₹1,20,000	6,000			
Less: Existing provision	<u>3,200</u>	2,800		
To Provision for discount on debtors 2.5% of ₹1,14,000	2,850			
Less: Existing provision	<u>1,375</u>	1,475		
To Depreciation:				
Plant and machinery	3,000			
Furniture and fittings	<u>1,025</u>	4,025		
To Office expenses		10,160		
To Interest on loan		3,000		
To Net profit (Transferred to capital account)		<u>83,800</u>		
		<u>1,39,985</u>		<u>1,39,985</u>

### Balance Sheet of Mr. XYZ as on 31st March, 2017

Liabilities	Amount ₹	Amount ₹	Assets	Amount ₹	Amount ₹
Capital account	65,000		Plant and machinery	20,000	
Add: Net profit	<u>83,800</u>		Less: Depreciation	<u>3,000</u>	17,000
	1,48,800		Furniture and fittings	10,250	
Less:	<u>11,500</u>		Less: Depreciation	<u>1,025</u>	9,225
Drawings		1,37,300	Closing stock		1,25,000
Bank overdraft		80,000	Sundry debtors	1,20,000	
Sundry creditors		47,500	Less: Provision for doubtful debts	6,000	
Payable salaries		2,450	Provision for bad debts	<u>2,850</u>	1,11,150
			Prepaid rent		300
			Cash in hand		1,450
			Cash at bank		<u>3,125</u>
		<u>2,67,250</u>			<u>2,67,250</u>

### Question No. 2

RTP Nov. 2018

The following is the trial balance of Hari as at 31st December, 2017:

	Dr. ₹	Cr. ₹
Hari's capital account	-	76,690
Stock 1 <sup>st</sup> January, 2017	46,800	-
Sales	-	3,89,600
Returns inward	8,600	-
Purchases	3,21,700	-
Returns outward	-	5,800
Carriage inwards	19,600	-
Rent & taxes	4,700	-
Salaries & wages	9,300	-
Sundry debtors	24,000	-



Sundry creditors	-	14,800
Bank loan @ 14% p.a.	-	20,000
Bank interest	1,100	-
Printing and stationary expenses	14,400	-
Bank balance	8,000	-
Discount earned	-	4,440
Furniture & fittings	5,000	-
Discount allowed	1,800	-
General expenses	11,450	-
Insurance	1,300	-
Postage & telegram expenses	2,330	-
Cash balance	380	-
Travelling expenses	870	-
Drawings	<u>30,000</u>	
	<u>5,11,330</u>	<u>5,11,330</u>

The following adjustments are to be made:

- (1) Included amongst the debtors is ₹3,000 due from Ram and included among the creditors ₹1,000 due to him.
- (2) Provision for bad and doubtful debts be created at 5% and for discount @ 2% on sundry debtors.
- (3) Depreciation on furniture & fittings @ 10% shall be written off.
- (4) Personal purchases of Hari amounting to ₹600 had been recorded in the purchases day book.
- (5) Interest on bank loan shall be provided for the whole year.
- (6) A quarter of the amount of printing and stationary expenses is to be carried forward to the next year.
- (7) Credit purchase invoice amounting to ₹400 had been omitted from the books.
- (8) Stock on 31.12.2017 was ₹78,600.

Prepare (i) Trading & profit and loss account for the year ended 31.12.2017 and (ii) Balance sheet as on 31<sup>st</sup> December, 2017.

## Answer

Trading and Profit and Loss Account of Mr. Hari for the year ended 31<sup>st</sup> December, 2017

	₹	₹		₹	₹
To Opening stock		46,800	By Sales	3,89,600	
To Purchases	3,21,700		Less: Returns	(8,600)	3,81,000
Add: Omitted invoice	<u>400</u>		By Closing stock		78,600
	3,22,100				
Less: Returns	<u>(5,800)</u>				
	3,16,300				
Less: Drawings	<u>(600)</u>	3,15,700			
To Carriage		19,600			
To Gross profit c/d		77,500			
		<u>4,59,600</u>			<u>4,59,600</u>
To Rent and taxes		4,700	By Gross profit b/d		77,500
To Salaries and wages		9,300	By Discount		4,440
To Bank interest	1,100				
Add: Due	<u>1,700</u>	2,800			
To Printing and Stationary	14,400				
Less: Prepaid (1/4)	<u>3,600</u>	10,800			
To Discount allowed		1,800			
To General expenses		11,450			
To Insurance		1,300			

To Postage & telegram expenses		2,330			
To Travelling expenses		870			
To Provision for bad debts [W.N.(ii)]		1,150			
To Provision for discount on debtors [W.N.(iii)]		437			
To Depreciation on furniture & fittings		500			
To Net profit		<u>34,503</u>			
		<b>81,940</b>			<b>81,940</b>

### Balance Sheet of Hari as at 31<sup>st</sup> December, 2017

Liabilities	₹	₹	Assets	₹	₹
Capital	76,690		Furniture & fittings	5,000	
Add: Net profit	<u>34,503</u>		Less: Depreciation	500	4,500
	1,11,193		Sundry debtors (W.N.1)	23,000	
Less: Drawings:			Less: Provision for bad & doubtful debts (W.N.2)	<u>1,150</u>	
Cash	30,000			21,850	
Goods	<u>600</u>	30,600	Less: Provision for discount (W.N.2)	<u>437</u>	21,413
Bank loan		20,000	Stock		78,600
Bank interest due		1,700	<u>Prepaid expenses:</u>		
Sundry creditors (W.N.3)		14,200	Printing & stationary		3,600
			Bank balance		8,000
			Cash balance		380
		<b><u>1,16,493</u></b>			<b><u>1,16,493</u></b>

Working Notes:

(1) Sundry debtors

Balance as per trial balance	24,000
Less: Due to Ram	<u>1,000</u>
	<u>23,000</u>

(2) Provision for bad & doubtful debts:

@ 5% on ₹23,000	<u>1,150</u>
-----------------	--------------

Provision for discount:

2% on ₹21,850 (23,000 - 1,150)	437
--------------------------------	-----

(3) Sundry creditors

Balance as per trial balance	14,800
Less: Set off in respect of Ram	<u>1,000</u>
	13,800
Add: Purchase invoice omitted	400
	<u>14,200</u>



# BANK RECONCILIATION STATEMENT:

Deposit 10,000

(A)

(B)

Businessman

In the books of bank

→ Bank A/c — Dr 10,000  
 To Cash A/c 10,000

Cash A/c — Dr 10,000  
 To Customer/A/c 10,000  
A

Withdrawal 5,000

Cash A/c — Dr 5,000  
 To Bank A/c 5,000

Customer/A/c — Dr 5,000  
 To Cash A/c 5,000  
A

Cash Book

Pass Book

Dr.	Cr.	Dr.	Cr.
Bank	Bank	Bank	Bank
Deposit	Withdrawal	Withdrawal	Deposit
↑	↑	↑	↑



Rule 1:

Dr. Balance as per Cash Book = Cr. Balance as per Pass Book = Bank Balance / Favourable Bal.

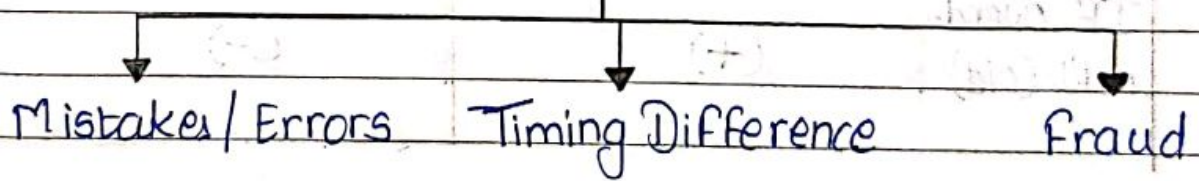
Rule 2:

Cr. Balance as per Cash Book = Dr. Balance as per Pass Book = Overdraft / Unfavourable / Negative Bal.

चलो जी आज साफ साफ कहता हूँ, इतनी सी बात है!

Dr. side of Cash Book = Deposit (Bank Column) ↪

Reasons of Difference in Cash Book & Pass Book.



TIMING DIFFERENCE:

- It is not a mistake
- Transaction recorded in cash Book and in Pass Book at different dates



• When transaction is recorded in one book but not recorded in another book then there will be difference in balances of both the books:

① Cheque deposited but not cleared or cheque paid into Bank but not yet credited.

	Cash Book	Pass Book
When	First	Later. (When cheque is cleared)
Where	Dr. side	Cr. side.
Effect	↑ (-)	↓ (+)
IF overdraft (old)	(+)	(-)

② Cheque issued / drawn but not presented:

Cash Book	Pass Book
First	Later (When cheque presented)
cr. ↓	Dr. ↑
(+)	(-)
Old (-)	(+)
Old (-)	(+)

③ Interest charged by Bank OR Direct Payment by bank.

Cash Book	Pass Book
Later (When P.B. is updated)	First
Cr. Side ↑	Dr. side ↓
(-)	(+)
Old (+)	(-)



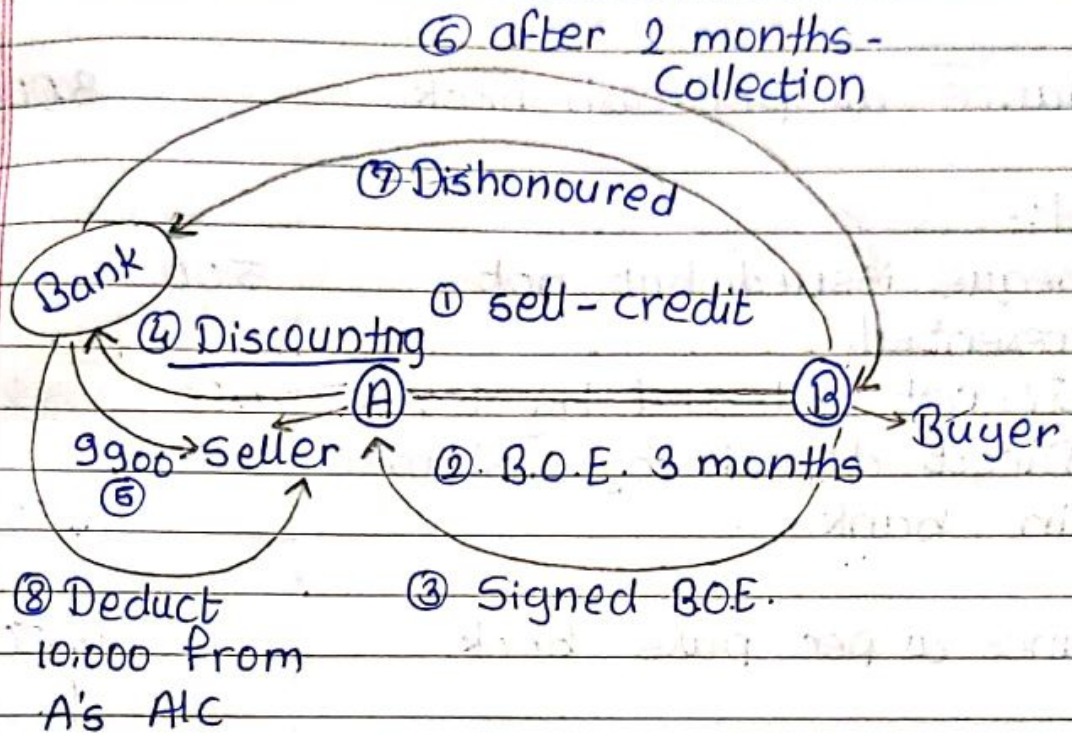
- ④. Direct collection by Bank.  
 Direct deposit by customer in Bank.  
 Interest allowed by Bank.

Cash Book	Pass Book.
later	First
After updation of P.B.	
Dr. side	cr. side.
↓	↑
(-)	(+)
(+)	(-)

- ⑤. Bill discounted is dishonoured:

Cash Book	Pass Book.
Later	First.
↑	↓
cr. side	Dr. side.
(-)	(+)
old	old
↓	↑
(+)	(-)





115119

- \* Started with Bal. & Answer is positive = Balance
- \* started with Bal. & Answer is negative = Overdraft
- \* Started with Old & Answer is positive = Overdraft
- \* Started with old & Answer is negative = Balance



## Bank Reconciliation Statement

### Question No. 1

**Problem No. 1 :** From the following entries in the Bank column of the Cash book of Saimurali and the corresponding pass book, prepare the bank reconciliation statement as on 30th September, 1983.

Bank Column Of Cash Book

Sept.	₹	Sept.	₹
1 To Ramprasad	1,500	1 By Balance b/d	2,500
12 To Vasantha Krishna	1,700	8 By Ramchandra	2,000
18 To Devidas	2,500	10 By Sainath	1,000
20 To KrishnaMurari	1,500	15 By Drawings	500
29 To Kailas Nath & Co.	1,000	20 By Salary	1,500
30 To Balance c/d	1,100	28 By Ghanshyam	1,800
	9,300		9,300

Saimurali In Account With Sivam Bank

Bank Pass Book

Sept.	₹	Sept.	₹
1 To Balance b/d	2,500	2 By Ramprasad	1,500
9 To Ramchandra	2,000	14 By Vasantha Krishna	1,700
11 To Sainath	1,000	19 By Devidas	2,500
15 To Drawings	500	25 By Sale of Security	1,500
20 To Salary	1,500	28 By Bills collected	300
25 To subscription to club	100	30 By Balance c/d	300
26 To LIC premium	50		
30 To Interest on o/d	150		
	7,800		7,800
Oct.			
1. To Balance b/d	300		

### Question No. 2

**Problem No.2:** The following is the summary of a cash book as presented to you for the month of December, 1977 :

Receipts	1,469	Balance brought forward	761
Balance, carried forward	554	Payments	1,262
	2,023		2,023

All receipts are banked and payments are made by cheque. On investigation you discover :

1. Bank charges of ₹ 136 entered in the bank statement had not been entered in cash book.
2. Cheques drawn amounting to ₹ 267 had not been presented to the bank for payment.

3. Cheques received totalling ₹ 762 had been entered in the cash book and paid into the bank, but had not been credited by the bank until January, 1978.
4. A cheque for ₹ 22 had been entered as a receipt in the cash book instead of as a payment.
5. A cheque for ₹ 25 had been debited by the bank erroneously.
6. A cheque received for ₹ 80 had been returned by the bank and marked "No funds available". No adjustment had been made in the cash book.
7. All dividends receivable are credited directly to the bank account. During December amounts totalling ₹ 62 were credited by the bank and no entries made in the cash book.
8. A cheque drawn for ₹ 6 had been incorrectly entered in the cash book as ₹ 66.
9. The balance brought forward should have been ₹ 711.
10. The bank statement as on 31st December 1977, showed an overdraft of ₹ 1,162.

You are required to:

- a) Show the adjustments required in the cash book, and
- b) prepare a bank reconciliation statements as on 31st December, 1977.



## Capital Revenue Expenditure

### Question No. 1

State with reasons whether the following statements are 'True' or 'False'.

- (1) Overhaul expenses of second-hand machinery purchased are Revenue Expenditure.
- (2) Money spent to reduce working expenses is Revenue Expenditure.
- (3) Legal fees to acquire property is Capital Expenditure.
- (4) Amount spent as lawyer's fee to defend a suit claiming that the firm's factory site belonged to the plaintiff's land is Capital Expenditure.
- (5) Amount spent for replacement of worn out part of machine is Capital Expenditure.
- (6) Expense incurred on the repairs and white washing for the first time on purchase of an old building are Revenue Expenses.
- (7) Expenses in connection with obtaining a license for running the cinema is Capital Expenditure.
- (8) Amount spent for the construction of temporary huts, which were necessary for construction of the Cinema House and were demolished when the cinema house was ready, is Capital Expenditure.

### Question No. 2

State with reasons whether the following are Capital or Revenue Expenditure:

- (1) Expenses incurred in connection with obtaining a license for starting the factory for ₹ 10,000.
- (2) ₹ 1,000 paid for removal of Inventory to a new site.
- (3) Rings and Pistons of an engine were changed at a cost of ₹ 5,000 to get fuel efficiency.
- (4) Money paid to Mahanagar Telephone Nigam Ltd. (MTNL) ₹ 8,000 for installing telephone in the office.
- (5) A factory shed was constructed at a cost of ₹ 1,00,000. A sum of ₹ 5,000 had been incurred in the construction of temporary huts for storing building material.

### Question No. 3

Good Pictures Ltd., constructs a cinema house and incurs the following expenditure during the first year ending 31st March, 2016.

- (i) Second-hand furniture worth ₹ 9,000 was purchased; repainting of the furniture costs ₹ 1,000. The furniture was installed by own workmen, wages for this being ₹ 200.
- (ii) Expenses in connection with obtaining a license for running the cinema worth ₹ 20,000. During the course of the year the cinema company was fined ₹ 1,000, for contravening rules. Renewal fee ₹ 2,000 for next year also paid.
- (iii) Fire insurance, ₹ 1,000 was paid on 1st October, 2015 for one year.
- (iv) Temporary huts were constructed costing ₹ 1,200. They were necessary for the construction of the cinema.  
They were demolished when the cinema was ready.

Point out how you would classify the above items.

### Question No. 4

State with reasons, how you would classify the following items of expenditure:

1. Overhauling expenses of ₹ 25,000 for the engine of a motor car to get better fuel efficiency.
2. Inauguration expenses of ₹ 25 lacs incurred on the opening of a new manufacturing unit in an existing business.
3. Compensation of ₹ 2.5 crores paid to workers, who opted for voluntary retirement.

**Question No. 5**

Classify the following expenditures and receipts as capital or revenue:

- (i) ₹ 10,000 spent as travelling expenses of the directors on trips abroad for purchase of capital assets.
- (ii) Amount received from Trade receivables during the year.
- (iii) Amount spent on demolition of building to construct a bigger building on the same site.
- (iv) Insurance claim received on account of a machinery damaged by fire.

**Question No. 6**

Are the following expenditures capital in nature?

- (i) M/s ABC & Co. run a restaurant. They renovate some of the old cabins. Because of this renovation some space was made free and number of cabins was increased from 10 to 13. The total expenditure was ₹ 20,000.
- (ii) M/s New Delhi Financing Co. sold certain goods on installment payment basis. Five customers did not pay installments. To recover such outstanding installments, the firm spent ₹ 10,000 on account of legal expenses.
- (iii) M/s Ballav & Co. of Delhi purchased a machinery from M/s Shah & Co. of Ahmedabad. M/s Ballav & Co. spent ₹ 40,000 for transportation of such machinery. The year ending is 31st Dec, 2015.



• TRANSACTIONS.

- 1) Mr. Y started business with cash ₹ 10,00,000.
- 2) Purchased machinery for ₹ 5,00,000.
- 3) Purchased computer on credit for ₹ 30,000 from A and company.
- 4) Paid salary worth ₹ 6,000.

→ Entries:

1) Cash A/c → Dr 10,00,000  
 To Capital A/c. 10,00,000.

2) Machinery A/c → Dr 5,00,000  
 To Cash A/c. 5,00,000.

3) Computer A/c → Dr 30,000  
 To A & Co. A/c. 30,000.

4) Salary A/c → Dr 6,000  
 To Cash A/c. 6,000.

Cash A/c.

Dr.		Cr.	
To Capital A/c.	10,00,000	By Machinery A/c.	5,00,000
		By Salary	6,000
		By Bal. b/d.	4,94,000
	10,00,000		10,00,000
To Bal. b/d.	4,94,000		



Capital Alc.

Dr.			Cr.	
By Bal. bld.	10,00,000	By Cash Alc.	10,00,000	
To				

Machinery Alc.

Dr.			Cr.	
To Cash Alc	5,00,000	By Bal. cld.	5,00,000	
To Bal. bld.	5,00,000			

Computer Alc.

Dr.			Cr.	
To A & Company Alc.	30,000	By Bal. cld.	30,000	
To Bal. bld.	30,000			

A & Company Alc.

Dr.			Cr.	
To Bal. bld.	30,000	By Computer	30,000	

Salary Alc.

Dr.			Cr.	
To Cash Alc	6,000	By Bal. cld.	6,000	
To Bal. bld.	6,000			



## Trial Balance.

Particulars	Dr. Balance	Cr. Balance
Cash	4,94,000	-
Capital A/c.	-	10,00,000
Machinery A/c.	5,00,000	-
Computer	30,000	-
A & Company	-	30,000
Salary	6,000	-
<b>Total.</b>	<b>10,30,000</b>	<b>10,30,000</b>

- IF Dr. Amount = Cr. Amount then trial balance will agree/tally — No effect on suspense A/c.
- IF Dr. Amount  $\neq$  Cr. Amount then trial balance won't tally. — Difference will go to suspense A/c.  
— On shorter side.
- Suspense A/c — जिसे कमी जिसे झांझी!

Suspense  
भांड





• Note:

- Suspense account may have Dr. or Cr. balance. —
- If suspense account has Dr. Balance then it is to be shown on asset side and if suspense account has Cr. Balance then it is to be shown on liability side.

TYPES OF ERRORS.

Error of principles

Accountant is not aware about few accounting rules therefore he will give effect to wrong A/c.

But trial balance will tally because Dr. Amt = Cr. Amt.

Example: Wages paid for installation of machinery of ₹ 1,000 is debited to wages A/c.

Rectification:  
 Machinery A/c  
 Dr 1000  
 Wages A/c  
 Cr 1000

Correct: Machinery A/c → Dr 1000  
 To Cash A/c. 1000

Wrong: Wages A/c → Dr 1000  
 To Cash A/c. 1000

Clerical errors

Error of omission      Error of Commission      Error of Compensating errors



## Expenditure

### Revenue Expenditure

- Recurring
- Regular
- Benefit will receive in same year.

### Capital Expenditure

- Non recurring
- Not regular
- Benefit will receive in next few years

### Asset ready to use.

<u>Before</u>	<u>After</u>
<u>Capital</u>	<u>Revenue</u>
↓	↓
All expenses incurred before use of asset.	<u>Exception:</u> IF expenses incurred for expansion, increasing capacity/performance/reducing operating cost then it is capital exp.
↓	↓
Added in value of asset.	Added in P & L A/c.
↓	↓
Benefit received for more than 1 yr.	Benefit received in current yr.
↓	↓
① Purchase cost ② Loading, unloading ③ Transportation, Insurance ④ Site preparation ⑤ Installation charges/wages ⑥ Trial Run.	e.g. administrative & selling expenses, repairs, maintenance.



# Receipt.

## Capital Receipt

- Non Recurring

Generally it is received from activity which is not regular business activity.

- ① Loan taken
- ② Issue of shares / Debentures
- ③ Sale of asset.
- ④ Compensation Received from Govt. for aquisition of Asset.

either treated as liability or Reduction in asset

## Revenue Receipt.

Recurring

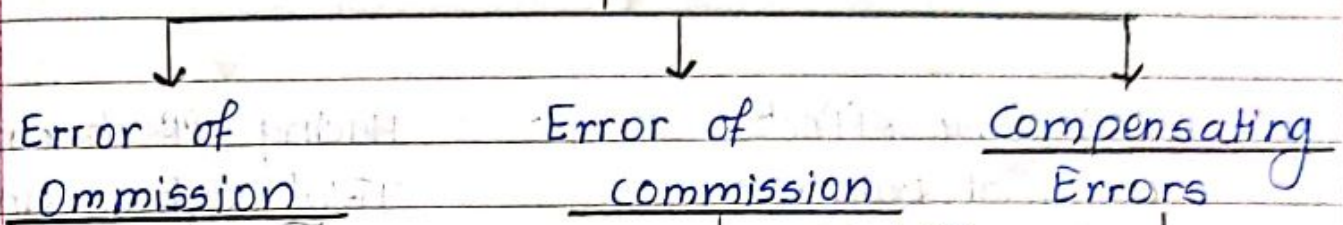
Generally it is received on regular basis in regular course of business.

- ① Sale of goods.
- ② Commission received
- ③ Rent received.
- ④ Interest received.

Treated as income & credited to Trading & P & L account.



## Clerical Errors (जब्यवाली में गलतीया हो जाती है)



a) Partial Omission:  
 One effect given and another is pending

Trial balance won't tally. Bal./Totalling of Alc is omitted.

b) Complete Omission:

Transaction not recorded / posted completely.

Trial Balance will Tally.

Error of Commission  
 Trial Balance (T.B)  
 - Wrong Alc - ✓  
 - Wrong Amount - x  
 - Wrong side - x  
 - Wrong Totalling - x  
 - Wrong Balance - x

Compensating Errors  
 Effect of one mistake is compensated by other mistake.

No effect on Trial Balance.  
 Trial Balance will Tally.

## Clerical Errors (जल्दबाजी में गलतीयां हो जाती हैं)

### Error of Omission

#### a) Partial Omission:

One effect given and another is pending.

Trial balance won't tally. Bal./Totalling of Alc is omitted.

#### b) Complete Omission:

Transaction not recorded / posted completely.

Trial Balance will Tally.

### Error of commission

Trial Balance (T.B)

- Wrong Alc - ✓
- Wrong Amount - x
- Wrong side - x
- Wrong Totalling - x
- Wrong Balance - x

### Compensating Errors

Effect of one mistake is compensated by other mistake.

No effect on Trial Balance.

Trial Balance will Tally.



# ERRORS

Having No effect on Trial Balance and Suspense Alc.

Having effect on Trial Balance and Suspense Alc.

- 1) Error of principles.
- 2) Complete omission  
Transaction not recorded or not posted completely.
- 3) Wrong Alc, Wrong amt. on both sides (In error of omission)
- 4) Compensating errors.

- a) Partial Omission:
- 1) Dr. or Cr. not posted
  - 2) One Alc is not totalled.
  - 3) One Alc is not balanced.

- b) Error of Commission:
- 1) Wrong side
  - 2) Wrong Amount
  - 3) Wrong totalling
  - 4) Wrong balancing

Real Alc

Nominal Alc

Personal Alc

Balanced

closed

Balanced.



Transactions:

- 1) Amount ₹ 10,000 paid to Mr. A is credited to Mr. B.
- 2) Amount paid to Mr. X. ₹ 500 is credited to Mr. Y as 5,000/-.
- 3) Amount ~~₹ 3,000.~~ paid to Mr. P is debited to Mr. Q ₹ 300.
- 4) Furniture purchased by Furniture Dealer is debited to Furniture Alc ₹ 15,000
- 5) Rent paid ₹ 5,000 is not recorded.
- 6) Wages paid ₹ 1000 is not debited to wages Alc.

Correct Entry	Wrong/Actual entry	Rectification Entry
1) Mr. A Alc → Dr 10,000 To Cash Alc 10,000	Suspense Alc → Dr 20,000 To Cash Alc 10,000 To B's Alc 20,000	Mr. A's Alc → Dr 10,000 Mr. B's Alc → Dr 10,000 To Suspense Alc. 20,000
2) Mr. X Alc → Dr 500 To Cash Alc. 500	Suspense Alc → Dr 5,500 To Cash Alc 500 To Y's Alc 5,000	Mr. X's Alc → Dr 500 Mr. Y's Alc → Dr 5,000 To Suspense Alc 5,500.
3) Mr. P Alc → Dr 3,000 To Cash Alc 3,000	Mr. Q's Alc → Dr 300 Suspense Alc → Dr 2,700 To Cash Alc 3,000	Mr. P's Alc → Dr 3,000. To Q's Alc 300 To Suspense Alc 2,700
4) Purchase Alc → Dr 15,000 To Cash Alc 15,000	Furniture Alc → Dr 15,000 To Cash Alc 15,000	Purchase Alc → Dr 15,000 To Furniture Alc 15,000





# Rectification of errors

**Question No. 1**

**RTP May 2018, RTP Nov. 2019**

The following errors were committed by the Accountant of Geete Dye-Chem.

1. Credit sale of ₹ 400 to Trivedi & Co. was posted to the credit of their account.
2. Purchase of ₹ 420 from Mantri & Co. passed through Sales Day Book as ₹ 240 .

How would you rectify the errors assuming that :

- a) They were detected before preparation of Trial Balance.
- b) They were detected after preparation of Trial Balance but before preparing Final Accounts, the difference was taken to Suspense A/c.
- c) They were detected after preparing Final Accounts.

## Answer

(i) This is one sided error. Trivedi & Co. account is credited instead of debit. Amount posted to the wrong side and therefore while rectifying the account, double the amount (₹ 800) will be taken.

<i>Before Trial Balance</i>	<i>After Trial Balance</i>	<i>After Final Accounts</i>
No Entry Debit Trivedi A/c with ₹ 800	Trivedi & Co. A/c Dr. 800 To Suspense A/c 800	Trivedi & Co. A/c Dr. 800 To Suspense A/c 800

(ii) Purchase of ₹ 420 is wrongly recorded through sales day book as ₹ 240.

<i>Correct Entry</i>		<i>Entry Made Wrongly</i>	
Purchase A/c .....Dr.	<b>420</b>	Mantri & Co. ....Dr.	240
To Mantri & Co.	420	To Sales	240

<i>Before Trial Balance</i>	<i>After Trial Balance</i>	<i>After Final Accounts</i>
Sales A/c .....Dr. 240	Sales A/c .....Dr. 240	Profit & Loss Adj. A/c .....Dr. 660
Purchase A/c .....Dr. 420	Purchase A/c .....Dr. 420	To Mantri & Co. 660
To Mantri & Co. 660	To Mantri & Co. 660	



## Question No. 2

RTP May 2019

M/s Suman & Co. find the following errors in their books of account before preparation of Trial Balance. You are required to pass necessary journal entries:

- I. A purchase of ₹ 5,600 from M/s Minu & Co. was recorded in the accounts of M/s Mintu & Co. as ₹ 6,500. Day Book entry has also been passed incorrectly.
- II. A sale of ₹ 9,800 to M/s Bantu Bros. was recorded in M/s Bindu & Co.'s account as ₹ 8,900. Day Book entry has also been incorrectly passed.
- III. Discount allowed ₹ 560 (as per Cash Book) has been posted to Commission Account. But the Cash Book total should be ₹ 650, because discount allowed of ₹ 90 to M/s Bantu Bros. has been omitted.
- IV. A cheque of ₹ 9,700 drawn by M/s Bantu Bros. has been dishonoured, but wrongly debited to M/s Bhakt & Co.

Should the Trial Balance tally without rectification of errors?

## Answer

Journal Proper of Suman & Co.

Rectification Entries

	Particulars	Dr. Amount ₹	Cr. Amount ₹
(i)	M/s Mintu & Co. A/c To M/s Minu & Co. A/c To Purchases A/c (Rectification of purchase entry for ₹ 5,600 dated....as ₹ 6,500 in M/s Mintu & Co.'s Account in place of M/s Minu & Co. A/c).	6,500	5,600 900
(ii)	M/s Bantu Bros. A/c To Sales A/c To M/s Bindu & Co. A/c (Rectification of sale entry for ₹ 9,800 dated as ₹ 8,900 in M/s Bindu & Co.'s Account in place of M/s Bantu Bros. A/c).	9,800	900 8,900
(iii)	Discount Allowed A/c To Commission A/c To M/s Bantu Bros. A/c (Rectification of wrong posting of discount in commission account and omission of discount transaction dated....).	650	560 90
(iv)	M/s Bantu Bros. A/c To Bhakt & Co. A/c (Wrong posting for the dishonoured cheque dated.... is being rectified).	9,700	9,700

Since all the errors are two-sided in nature, Trial Balance would have tallied even if the rectifications are not done.

## Question No. 3

May 2018 (4 Marks)

Give journal entries (narrations not required) to rectify the following:

- Purchase of Furniture on credit from Nigam for ₹ 3,000 posted to Subham account as ₹ 300.
- A Sales Return of ₹ 5,000 to Jyothy was not entered in the financial accounts though it was duly taken in the stock book.
- Investments were sold for ₹ 75,000 at a profit of ₹ 15,000 and passed through Sales account.
- An amount of ₹ 10,000 withdrawn by the proprietor (Darshan) for his personal use has been debited to Trade Expenses account.

## Answer

## Journal Entries

	<i>Particulars</i>	<i>L.F.</i>	<i>Dr.</i>	<i>Cr.</i>
			<i>(₹)</i>	<i>(₹)</i>
(i)	Subham A/c Furniture A/c To Nigam A/c	Dr. Dr.	300 2,700	3,000
(ii)	Sales Returns A/c To Jyothy A/c	Dr.	5,000	5,000
(iii)	Sales A/c To P & L A/c (Gain on sale of investments) To Investments A/c	Dr.	75,000	15,000 60,000
(iv)	Drawings A/c To Trade Expenses A/c	Dr.	10,000	10,000

## Question No. 4

Nov. 2018 (10 Marks)

The following mistakes were located in the books of a concern after its books were closed and a Suspense Account was opened in order to get the Trial Balance agreed:

- Sales Day Book was overcast by ₹ 1,000.
- A sale of ₹ 5,000 to X was wrongly debited to the Account of Y.
- General expenses ₹ 180 was posted in the General Ledger as ₹ 810.
- A Bill Receivable for ₹ 1,550 was passed through Bills Payable Book. The Bill was given by P.
- Legal Expenses ₹ 1,190 paid to Mrs. Neetu was debited to her personal account.
- Cash received from Ram was debited to Shyam ₹ 1,500.
- While carrying forward the total of one page of the Purchases Book to the next, the amount of ₹ 1,235 was written as ₹ 1,325.

Find out the nature and amount of the Suspense Account and Pass entries (including narration) for the rectification of the above errors in the subsequent year's books.



## Answer

(i)	P & L Adjustment A/c To Suspense A/c (Correction of error by which sales account was overcast last year)	Dr.	1,000	1,000
(ii)	X To Y (Correction of error by which sale of ₹ 5,000 to X was wrongly debited to Y's account)	Dr.	5,000	5,000
(iii)	Suspense A/c To P & L Adjustment A/c (Correct of error by which general expenses of ₹ 180 was wrongly posted as ₹ 810)	Dr.	630	630
(iv)	Bills Receivable A/c Bills Payable A/c To P (Correction of error by which bill receivable of ₹ 1,550 was wrongly passed through BP book)	Dr. Dr.	1,550 1,550	3,100
(v)	P&L Adjustment A/c To Mrs. Neetu (Correction of error by which legal expenses paid to Mrs. Neetu was wrongly debited to her personal account)	Dr.	1,190	1,190
(vi)	Suspense A/c To Ram To Shyam (Removal of wrong debit to Shyam and giving credit to Ram from whom cash was received)	Dr.	3,000	1,500 1,500
(vii)	Suspense A/c To P&L Adjustment A/c (Correction of error by which Purchase A/c was excess debited by ₹90/-, ie: ₹1,325 - ₹1,235)	Dr.	90	90

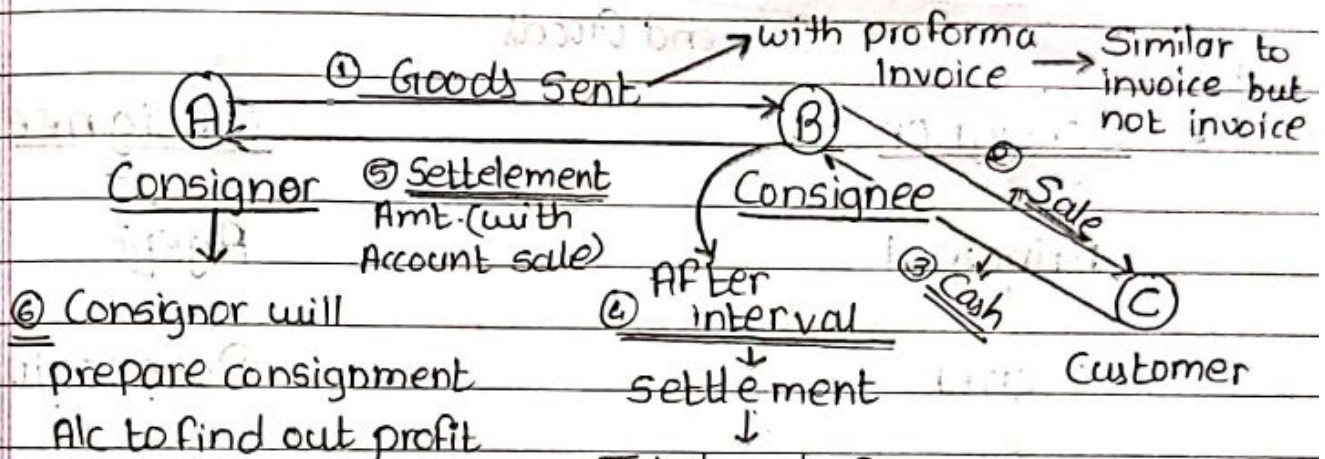
## Suspense A/c

	₹		₹
To P & L Adjustment A/c	630	By P & L Adjustment A/c	1,000
To Ram	1,500	By Difference in Trial	2,720
To Shyam	1,500	Balance (Balancing figure)	
To P&L Adjustment A/c	90		
	3,720		3,720

# CONSIGNMENT

- Consignment :  
To Dispatch (Goods)

- Invoice Price (IP) = Cost Price (CP) + Loading.



Total sale Proceeds	xxx
(-) Commission	xxx
(-) Expenses incurred by consignee on behalf of consignor	xxx
(-) Advance (if any)	xxx
<b>Settlement Amt.</b>	<b>xxx</b>

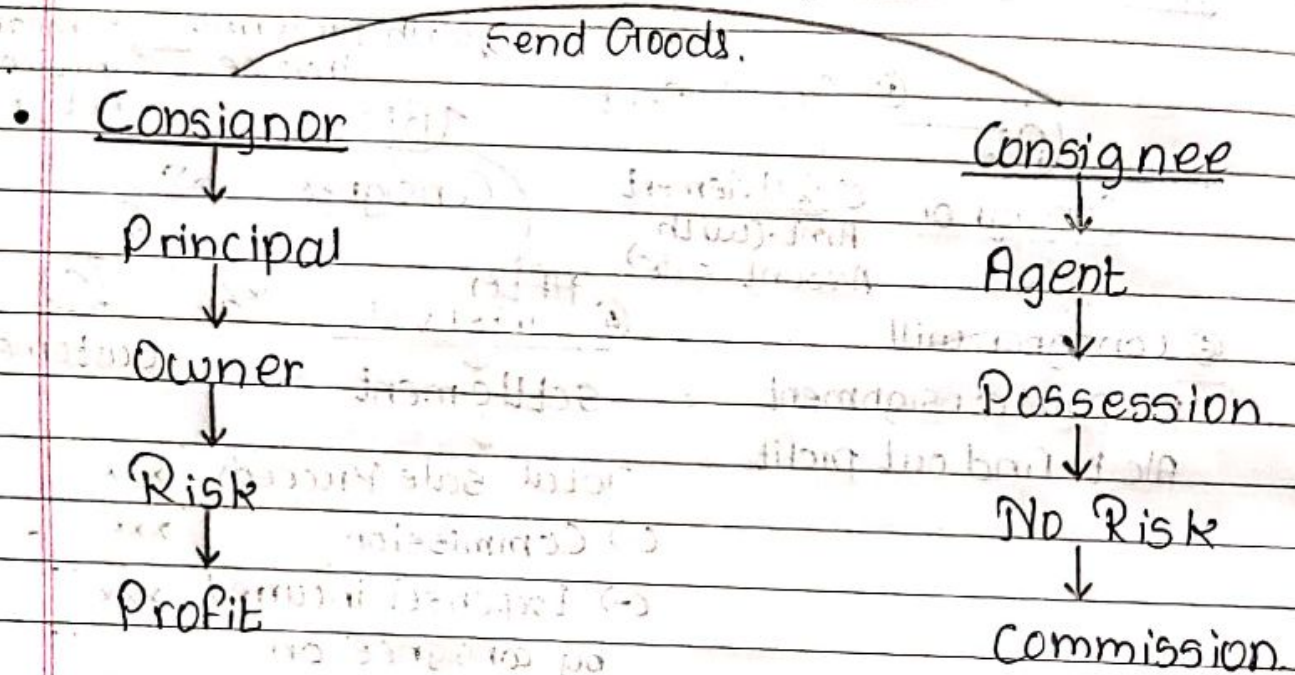
- Account Sale : Details of all transactions given by consignee.

- Separate consignment Alc for each consignee.
- Profit or loss from consignor Alc shall be transferred to P & L Alc.



- Advance
  - Normal → Adjusted in full.
  - Advance as an security → Adjusted in proportion to sale.

28/19



<u>Cost Price</u>	<u>Invoice Price</u>
100%	50% ( $\frac{1}{2}$ )
50% ( $\frac{1}{2}$ )	33.33% ( $\frac{1}{3}$ )
33.33% ( $\frac{1}{3}$ )	25% ( $\frac{1}{4}$ )
25% ( $\frac{1}{4}$ )	20% ( $\frac{1}{5}$ )
20% ( $\frac{1}{5}$ )	16.67% ( $\frac{1}{6}$ )



Stock Reserve is loading included in closing stock.

## COMMISSION

Ordinary

Payable to each  
consignee on  
Gross sale.

Special

Del credere  
Commission

Over riding  
Commission

Consignor may  
transfer risk of  
bad-debts to  
consignee and  
he will pay  
extra commission  
for sale, such  
commission is  
known as Del  
credere commission.

Given in  
two cases:  
① for sale of  
new product  
② for selling  
goods at  
higher price  
than normal  
price.

Generally  
Responsibility  
of consignor

Consignment A/c  
debited.

IF Del credere  
commission given  
then it is loss/  
responsibility of  
consignee

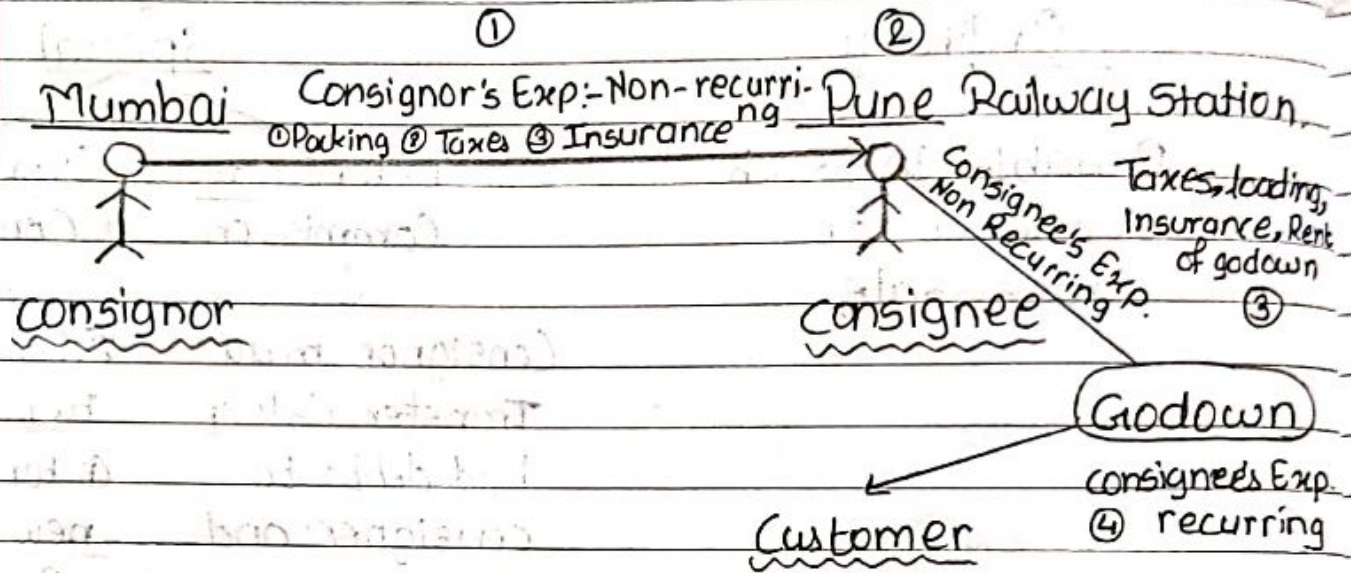
Comm<sup>n</sup> will Dr.  
to comm<sup>n</sup> earned A/c.

Calculation  
method is  
given otherwi-  
se gross sale

Calculated on Gross Sale.



• Valuation of Closing Stock!



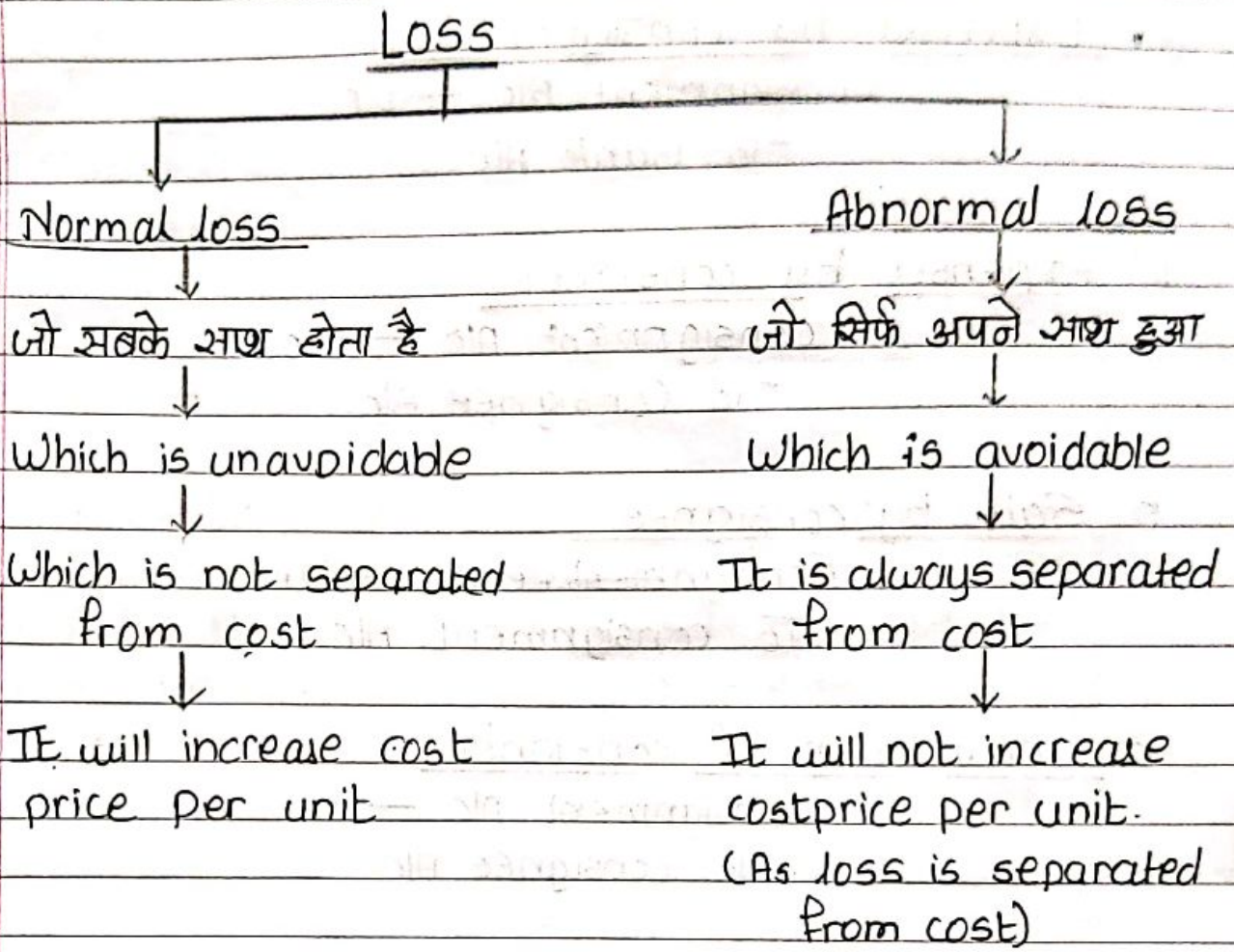
• Valuation of Closing Stock in Godown =  $\text{Cost of goods} + \text{Proportionate Non Recurring exp. of consignor} + \text{Pro. N.R. exp. of consignee}$

Valuation of closing stock lost in godown! = \_\_\_\_\_

Goods lost in Transit =  $\text{Cost of goods} + \text{Pro. N.R. exp. of consignor}$

• Abnormal loss is always calculated on cost price and not at invoice price.





18/11/19 ① Goods Sent on Consignment at invoice price or cost price.

Consignment Alc — Dr  
To Goods sent on consignment Alc.

② loading on goods sent. (Only if goods are sent at invoice price)

Goods sent on consignment Alc — Dr  
To Consignment Alc.



③ Expenses by consignor:

Consignment Alc — Dr  
    To Bank Alc.

④ Expenses by consignee,

Consignment Alc — Dr  
    To Consignee Alc.

⑤ Sale by consignee

Consignment ee Alc — Dr  
    To consignment Alc.

⑥ Commission of consignee.

Consignment Alc — Dr  
    To consignee Alc.

⑦ Settlement amount paid by consignee to consignor:

Bank Alc — Dr  
    To consignee Alc.

⑧ Entry for consignment stock (closing stock)

Consignment stock Alc — Dr  
    To consignment Alc.

⑨ Entry for abnormal loss.

Abnormal loss Alc — Dr  
    To consignment Alc.

\* This abnormal loss will be transferred to P&L Alc.

# Consignment

## Multiple choice Questions

1. Ram of Kolkata sends out goods costing 1,00,000 to Y of Mumbai at 20% profit on invoice price. 1/10<sup>th</sup> of the goods were lost in transit. 1/2 of the balance goods were sold. The amount of stock reserve On consignment stock will be:

- (a) 4,500 (b) 9,000 (c) 11,250 (d) None

2. On 1st July Krishnan of Chennai consigned 100 bales of cotton to Dheeraj of Hyderabad (Cost price 7,500) at a proforma invoice price of 25% profit On sales. Consignment accounted would be credited for loading by\_

- (a) 2,000 (b) 1,500 (c) 2,500 (d) 3,300

3. X of Kolkata sends out 500 bags to Y costing 400 each at an invoice price of 500 each. Consignor's A/c expenses 4,000 consignee's expenses, non-selling 1,000, selling 2,000. 400 bags were sold. The Stock Reserve will be -

- (a) 10,000 (b) Nil (c) 20,000 (d) 20,400

4. Rabin consigned goods for the value of 8,250 to Raj of Kanpur paid freight etc. of 650 and insurance 400. Drew a bill of Raj at 3 months after date for 3,000 as an advance against consignment, and discounted the bill for 2960. Received Account sales from Raj showing that part of the goods had realized gross 8,350 and that his expenses and commission amounted to 870. The stock unsold was valued at 2,750. Consignee wants to remit a draft for the amount due. The amount of draft will be:

- (a) 2130 (b) 4480 (c) 5130 (d) 5090

5. X of Kolkata sends out goods costing 1,00,000 to Y of Delhi. 3/5<sup>th</sup> of the goods were sold by consignee for 70,000, commission 2% on sales plus 20% of gross sales less all commission exceeds cost price. The amount of commission will be:

- (a) 2833 (b) 2900 (c) 3000 (d) 2800

6. A of Mumbai sold goods to B of Delhi, the goods are to be sold at 125% of cost which is invoice price. Commission 10% on sales at IP and 25% of any surplus realized above IP. 10% of the goods sent out on consignment, invoice value of which is 12,500 were destroyed. 75% of the total consignment is sold by B at 1,00,000. What will be the amount of commission payable to B?

- (a) 10,937.50 (b) 10,000 (c) 9,000 (d) 9,700

7. X of Kolkata sends out goods costing 3,00,000 to Y of Delhi. Commission agreement 2% on sales + 3% on sales as del-credere commission. The entire goods is sold by consignee for 4 lacs. However, consignee is able to recover 3,95,000 from the debtors. The amount of profit to be transferred to P/L as net commission by consignee will be:

- (a) 15,000 (b) 22,000 (c) 21,000 (d) 20,000

8. B sold 50 televisions at 15,000 per television. He was entitled to commission of 500 per television sold plus one fourth of the amount by which the gross sale proceeds less total commission there on exceeded a sum calculated at the rate of 12,500 per television sold. Amount of commission will be -

- (a) 45,000 (b) 50,000 (c) 40,000 (d) 35,000



9. 1000 kg of apples are consigned to a wholesaler, the cost being 3 per kg plus Rs.400 of freight, it is known that a loss of 15% is unavoidable. The cost per kg will be:  
(a) 5 (b) 4 (c) 3.40 (d) 3
10. X of Kolkata sends out 2000 boxes to Y of Delhi costing 100 each. Consignor's expenses 5000.  $\frac{1}{10}^{\text{th}}$  of the boxes were lost in consignee's godown and treated as normal Loss 1200 boxes were sold by consignee. The value of consignment stock will be  
(a) 68333 (b) 61500 (c) 60000 (d) 60250
11. Mahendra of Madras sent goods to Jaya of Delhi at an invoice price of 29,675. He paid freight 762; cartage 231 and insurance 700. On the way one-fourth of the goods was lost by fire and claim of 5,000 was recovered from the insurance company. calculate abnormal loss  
(a) 5,000 (b) 7,842 (c) 2,419 (d) 2,842
12. X sends out 1000 bag to Y costing 200 each. Consignor's expenses 4000, V's expenses non-selling 4000, selling 5000, 100 bags were lost in transit. Value of loss in transit will be:  
(a) 20,400 (b) 20,800 (c) 20,000 (d) 21,300
13. 200 cases @ 150 case were sent on consignment. 180 cases @ 250 per case were sold by consignee. Expenses incurred by consignor were: freight 1,500, Insurance 850, loading charges 250. Expenses incurred by consignee were: Unloading 200, Storage 200, selling expenses 100, Insurance 150. Find the value of unsold stock  
(a) 3,315 (b) 3,325 (c) 3,280 (d) 3,295
14. A of Ahmadabad consigned goods of 10,000 to M of Madras and paid Rs. 500 for expenses. The consignee paid 100 for freight and 50 godown rent. 80% of goods were sold and commission of 500 was paid. Find the value of closing stock  
(a) 2,000 (b) 2,120 (c) 2,100 (d) 2,030
15. Goods sent out on consignment 2,00,000. Consignor's expenses 5,000. Consignee's expenses 2000. cash sales 1,00,000, credit sales 1,10,000. Consignment stock 40,000.. Ordinary commission payable to consignee 3,000. Del-credere commission 2,000. The amount irrecoverable from customer 2,000. What will be the profit on consignment?  
(a) 38,000 (b) 40,000 (c) 36,000 (d) 43,000
16. Goods sent on consignment 7,60,000. Opening consignment stock 48,000. cash sales 7,00,000. Consignor's expenses 20,000. Consignee's expenses 12,000. Commission 20,000. Closing consignment stock 3,00,000. The profit on consignment is:  
(a) 1,50,000 (b) 1,40,000 (c) 92,000 (d) None

## Practical Questions

Question No. 1

RTP May 2018

Mr. A of Assam sent on 18th February, 2017 a consignment of 1,000 DVD players to B of Bengal costing ₹ 100 each. Expenses of ₹ 1,500 were met by the consignor. B spent ₹ 3,000 for clearance and selling expenses were ₹ 20 per DVD player.

B sold on 15th March, 2017, 600 DVD players @ ₹ 160 per DVD player and again on 20th May, 2017, 300 DVD players @ ₹ 170 each.

B is entitled to a commission of ₹ 25 per DVD player sold plus  $\frac{1}{4}$  of the amount by which the gross sale proceeds less total commission thereon exceeded a sum calculated @ ₹ 125 per DVD player sold. B sent the amount due to A on 30th June, 2017.

You are required to prepare the consignment account and B's account in the books of A.

### Answer

#### In the books of A Consignment Account

Dr.		Amount	Cr.		Amount
		₹			₹
2017			2017		
Feb. 18	To Goods Sent on Consignment account	1,00,000	March 15	By B's account (Sales) (600 x ₹ 160)	96,000
Feb. 18	To Cash/Bank account (Expenses)	1,500	May 20	By B's account (Sales) (300 x ₹ 170)	51,000
Feb. 18	To B's account (Clearance charges)	3,000	June 30	By Consignment Stock (Working note 2)	10,450
June 30	To B's account: Selling expenses (900 x ₹ 20)	18,000			
	Commission (Working note 1)	24,900			
June 30	To Profit and loss account (profit on consignment transferred)	10,050			
		1,57,450			1,57,450

#### B's Account

Dr.		Amount	Cr.		Amount
		₹			₹
2017			2017		
March 15	To Consignment Account (Sales)	96,000	Feb 18	By Consignment account (Clearance charges)	3,000
May 20	To Consignment Account (Sales)	51,000	June 30	By Consignment account: Selling expenses	18,000
			June 30	Commission	24,900
			June 30	By Cash/Bank account	1,01,100
		1,47,000			1,47,000



**Working Notes:****1. Calculation of total commission: Let total commission be x**

$$x = 900 \times ₹ 25 + \frac{1}{4} [(\text{₹ } 96,000 + \text{₹ } 51,000) - x - (900 \times \text{₹ } 125)]$$

$$x = ₹ 22,500 + \frac{1}{4} [\text{₹ } 1,47,000 - x - ₹ 1,12,500]$$

$$x = ₹ 22,500 + \frac{1}{4} [\text{₹ } 34,500 - x]$$

$$4x + x = ₹ 90,000 + ₹ 34,500$$

$$5x = ₹ 1,24,500$$

$$x = ₹ 24,900$$

**2. Valuation of consignment stock:**

100 DVD players @ ₹ 100 each	10,000
Add: Proportionate expenses of A (₹ 1,500×100)/ 1,000	150
Proportionate expenses paid by B (₹ 3,000×100) /1,000	300
	<b>10,450</b>

**Question No. 2****RTP Nov. 2018**

On 1.1.2018, Mr. Jill of Mumbai consigned to Mr. Jack of Chennai goods for sale at invoice price. Mr. Jack is entitled to a commission of 5% on sales at invoice price and 20% of any surplus price realized over and above the invoice price. Goods costing ₹ 1,00,000 were consigned to Chennai at the invoice price of ₹ 1,50,000. The direct expenses of the consignor amounted to ₹ 10,000. On 31.3.2018, an account sales was received by Mr. Jill from Mr. Jack showing that he had effected sales of ₹ 1,20,000 in respect of 4/5th of the quantity of goods consigned to him. His actual expenses were ₹ 3,000. Mr. Jack accepted a bill drawn by Mr. Jill for ₹ 1,00,000 and remitted the balance due in cash.

You are required to prepare the consignment account and the account of Mr. Jack in the books of Mr. Jill.

**Answer**  
**In the books of Mr. Jill**  
**Consignment Account**

Date 2018	Particulars	₹	Date 2018	Particulars	₹
Jan. 1	To Goods sent on Consignment A/c (Invoice price)	1,50,000	Jan. 1	By Goods sent on Consignment A/c (Loading) ₹ (1,50,000 - 1,00,000)	50,000
Mar.31	To Bank A/c Consignor's Expenses	10,000	Mar.31	By Jack - Sales	<b>1,20,000</b>
Mar.31	To Jack - Expenses	3,000	Mar.31	By Stock on Consignment A/c 1/5 x ₹ (1,50,000+10,000+3,000)	32,600
	- Commission* (0.05 x ₹ 1,20,000)	6,000			
Mar.31	To Stock Reserve	10,000			

	A/c (₹ 50,000 x 1/5)				
	To Profit on Consignment A/c (transferred to Profit and Loss A/c)	23,600			
		2,02,600			2,02,600

\*Invoice price of goods sold: =  $4/5$  of ₹ 1,50,000 = ₹ 1,20,000.

The goods were sold for ₹ 1,20,000 and hence there was no surplus price. Therefore, extra commission @ 20% will not be given to Mr. Jack.

### Jack's Account

Particulars	₹	Particulars	₹	₹
To Consignment A/c -		By Consignment A/c:		
Sales	1,20,000	Expenses	3,000	
		Commission	6,000	9,000
		By Bills Receivable A/c		1,00,000
		By Bank A/c (Balancing figure)		11,000
	<b>1,20,000</b>			<b>1,20,000</b>



# PARTNERSHIP

As per partnership Act, following rules will apply to partners / firm if unless agreed:-

- 1) Profit sharing ratio is equal
- 2) No right to receive interest on capital.
- 3) No right to receive remuneration / salary.
- 4) Partner can claim interest on advance / loan given to partner at 6% p.a.

Above rules may be changed by agreement between partners.

Interest on capital is payable only if agreed.  
(Given in problem).

- Interest on capital shall be paid only in case of profit. In case of loss no partners are received interest on capital.
- But if there is insufficient profit then available profit shall be distributed in capital ratio.

- Interest on Capital xxx  
(For full year)

- Interest on Additional Capital xxx  
(Calculate interest from the date of introduction of capital to year end)

xxx



2) Prefer Notes

## Methods of Partners Capital

Fixed Capital Method

Fluctuating Capital Method

Prepare : 1) Capital Alc  
          2) Current Alc

Prepare : Capital Alc

- Interest is not payable on current Alc.

## Interest on Drawing

When drawing is not uniform/regular or there is no consistent pattern of date & amount of drawing

Calculate interest on drawing separately on each drawing from date of drawing to year end.

When drawing is uniform and there is consistent pattern in date & amount

Drawing of same amt. at beginning of month    Drawing of same amt. at middle of month    Drawing of same amt. at end of month

Calculate int. erest for 6.5 months on annual drawing    Calculate interest for 6 months on annual drawing    Calculate interest for 5.5 months on annual drawing



8)

• Guarantee of Minimum Profit : (Refer Notes)

• GOODWILL :

Gaining partner shall pay amount of goodwill to sacrificing partner as an compensation.

∴ Amount of goodwill shall be distributed in sacrificing ratio.

- IF nothing is specified about sacrificing ratio and new PSR then it may be assumed that old PSR of those partners is sacrificing ratio.

- 1) Partner Introduced : Goodwill in cash
- 2) Partner is not introduced goodwill in cash
- 3) Settlement outside firm

↓  
Option 1: Goodwill shown in capital only.

Bank A/c — Dr

To New partners Capital A/c  
(Capital + goodwill)

↓  
Then adjust it from his capital

↓  
No Entry

Same  
(Option 1)

New partner capital A/c — Dr  
(Gaining)

To Sacrificing partner A/c  
(Only goodwill amE. in sacrificing return)

Option 2:

Bank A/c — Dr

To New partner capital A/c

To Premium For Goodwill A/c

Premium for Goodwill

A/c — Dr

To sacrificing partner cap. A/c



4)

• Methods of Goodwill Valuation:

1) Average Profit Method:

$$\text{Average Profit} \times \text{No. of year of purchase}$$

2) Super Profit Method:

$$\text{Super profit} \times \text{No. of year of purchase}$$

$$\text{Super profit} = \text{Average profit} - \text{Normal Profit}$$

$$\text{Normal Profit} = \text{Capital Employed} \times \text{Normal Rate of Return (N.R.R.)}$$

3) Capitalization Method:

$$\text{Goodwill} = \text{Normal Capital} - \text{Actual Capital}$$

$$\text{Normal Capital} = \frac{\text{Average Profit}}{\text{Normal rate of return}}$$

$$\text{Actual Capital} = \text{Assets} - \text{Liabilities}$$

4) Annuity Method:

$$\text{Goodwill} = \text{Super Profit} \times \text{Sum of discounting factors of No. of years of purchase}$$

$$\frac{1}{1+r}$$



5)

6

# Average Profit

## Past Adjustment

- Wrong valuation of Inventory / Depreciation in any year.
- Abnormal loss / Gain.

Reverse the above situation & in respective years of profit & find out correct profit for each yr.

IF either continuous decrease in profit OR continuous increase in profit

↓  
Weighted Average Method

IF profit is fluctuating

↓  
Simple Average Method

$$\frac{10,000 + 30,000 + 20,000}{3} = 20,000$$

↙ And Average

## Future Adjustment

Always adjusted from average profit.

### Example:

1) It is proposed that every partner shall get salary / remuneration from next year.

### 2) Interest on Capital

Now this is final profit (Average) for calculation of goodwill

2017	10,000 × 1 = 10,000	} 1,40,000
2018	20,000 × 2 = 40,000	
2019	30,000 × 3 = 90,000	
	<u>6</u> 1,40,000	= <span style="border: 1px solid black; padding: 2px;">23,333</span>



## • Admission of Partner:

### Steps:

1) Calculation of new PSR or Gaining / Sacrificing ratio.  
(If not given / if required)

2) Balance to reserves and Profit & loss A/c before admission shall be credited to old partners in old PSR.

3) Revaluation of assets and liabilities:  
If profit on revaluation: Credit to old partners in old PSR.

If losses on revaluation: Debit to old partners in old PSR.

4) Introduction of capital by new partner and Introduction of share of goodwill by new partner.

5) Adjustment of Goodwill (In gaining / sacrificing ratio)

6) Maintaining Proportionate Capital.  
(Only if specified in problem)



• Revaluation of Assets and Liabilities.

Revaluation A/c is prepared to find out profit or loss on revaluation. (Nominal A/c)

Revaluation A/c.

Dr.		Cr.	
<u>Loss:</u>		<u>Profit</u>	
- Increase in liability and - decrease in asset. (Unrecorded liability)	xxx	- Decrease in liability - Increase in assets (Include unrecorded assets)	xxx xxx
IF Profit*		IF Loss*	
(Credit old partner in old PSR)	xxx	(Dr. old partners in old PSR)	xxx

• Increase in Asset:

Asset A/c — Dr.  
To Revaluation A/c.

• Decrease in Asset:

Revaluation A/c — Dr.  
To Asset A/c.

• Increase in Liability:

Revaluation A/c — Dr.  
To Liability A/c.



- Decrease in Liability:

Liability Alc — Dr.  
To Revaluation Alc.

- IF Firm is Willing to Revalue Asset without affecting values of Assets & Liabilities:

In other word firm can follow process of revaluation without making changes in values of assets.

Dr.		Cr.	
Capital:		Land	10,00,000
A	5,00,000		
B	5,00,000		
	10,00,000		10,00,000

Land revalued at 25,00,000. New partner introduced 5,00,000 as capital and his share will be 1/5th. No changes in value of asset to be made.

Memo. Revaluation Alc

Dr.		Cr.	
To Profit*	15,00,000	Land ↑	15,00,000
	15,00,000		15,00,000



New partner (C) Capital Alc — Dr 3,00,000  
 To (Gaining)  $(15,00,000 \times \frac{1}{5})$   
 To A's Capital Alc - 1,50,000  
 To B's Capital Alc - 1,50,000

New Balance Sheet

Capital:			
A (5L + 1.5 L)	6,50,000	Land	10,00,000
B (5L + 1.5 L)	6,50,000	Cash:	
C (5L - 3 L)	2,00,000	New Partner	5,00,000
	15,00,000		15,00,000

• HIDDEN GOODWILL:

New Partners  $\times$  Reciprocal haulover had  
 Capital (Reverse)  
 share of =  $\frac{10,000}{xxx}$   
 new partner  
 $\frac{14,000}{-} \times \frac{5}{-}$

(→) Actual Capital of all partners = (xxx)

Goodwill xxx



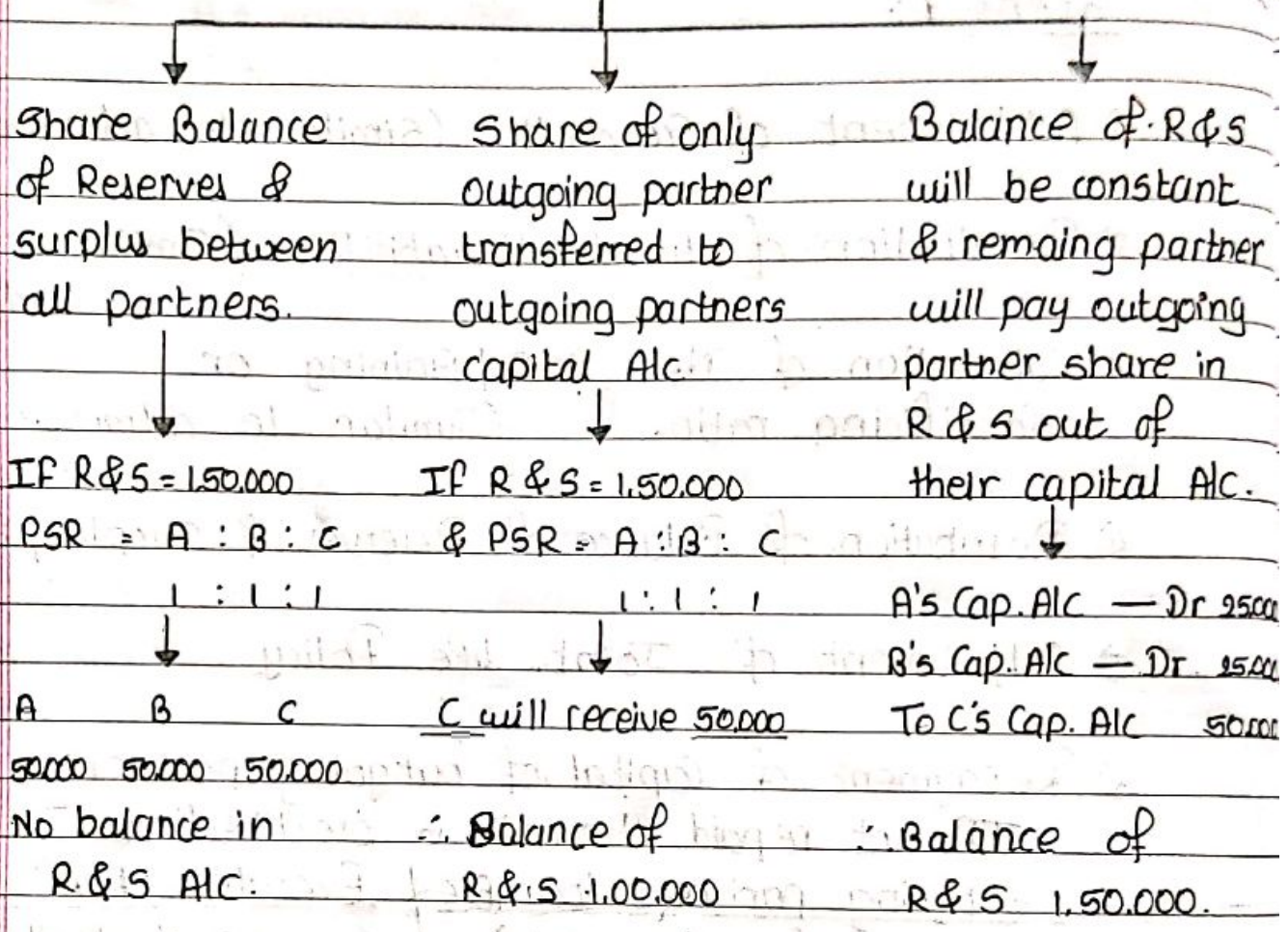
## • RETIREMENT & DEATH:

### Steps :-

- 1) Adjustment of Goodwill. (Similar to admission)
- 2) Revaluation of Assets & liabilities. (Similar to admission)
- 3) Calculation of New PSR / Gaining or sacrificing ratio. (Similar to admission)
- 4) Distribution of Balance of Reserves & Surplus / P&L Ac.
- 5) Adjustment of Joint life Policy.
- 6) Repayment of Capital of outgoing partner:  
IF not repaid then it is credited to  
outgoing partners loan Ac / Executors loan Ac  
(in case of retirement) / (in case of death)
- 7) Calculate profit sharing of current year taking the base of profit of last year.

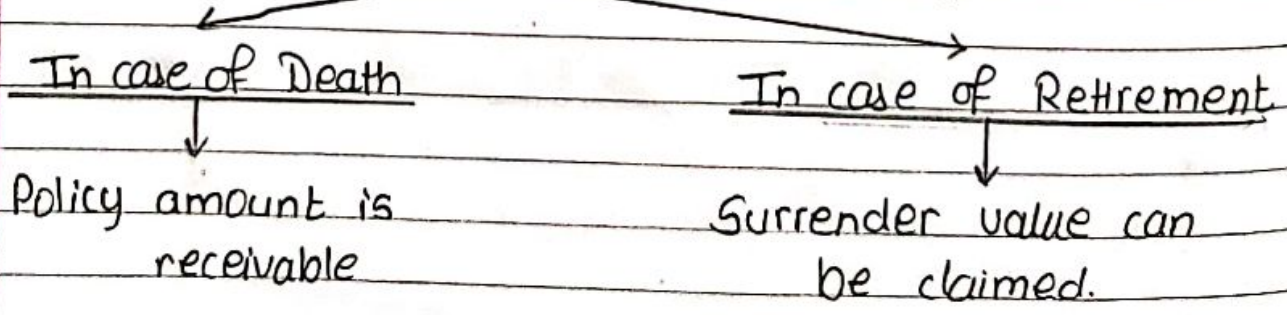


## Distribution of Balance of Reserves & Surplus



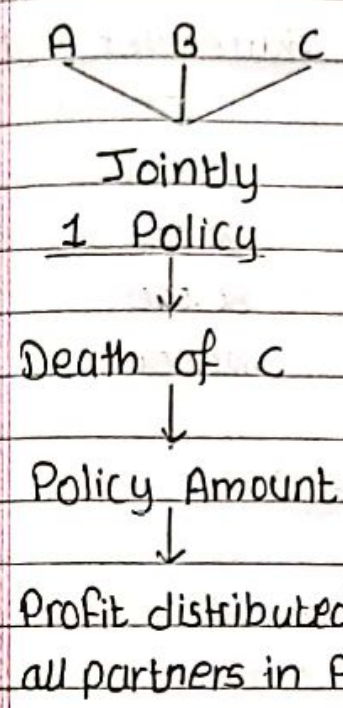
## • JOINT LIFE POLICY

- JLP may be taken jointly or severally.

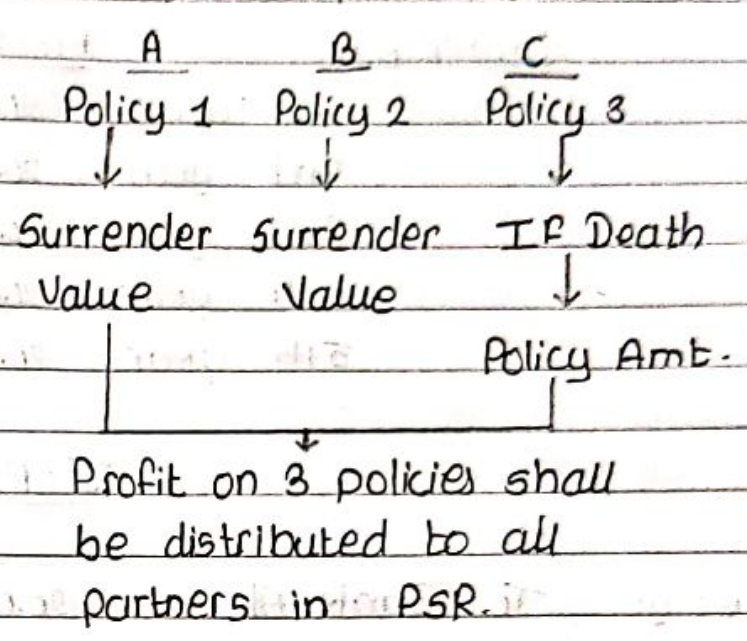




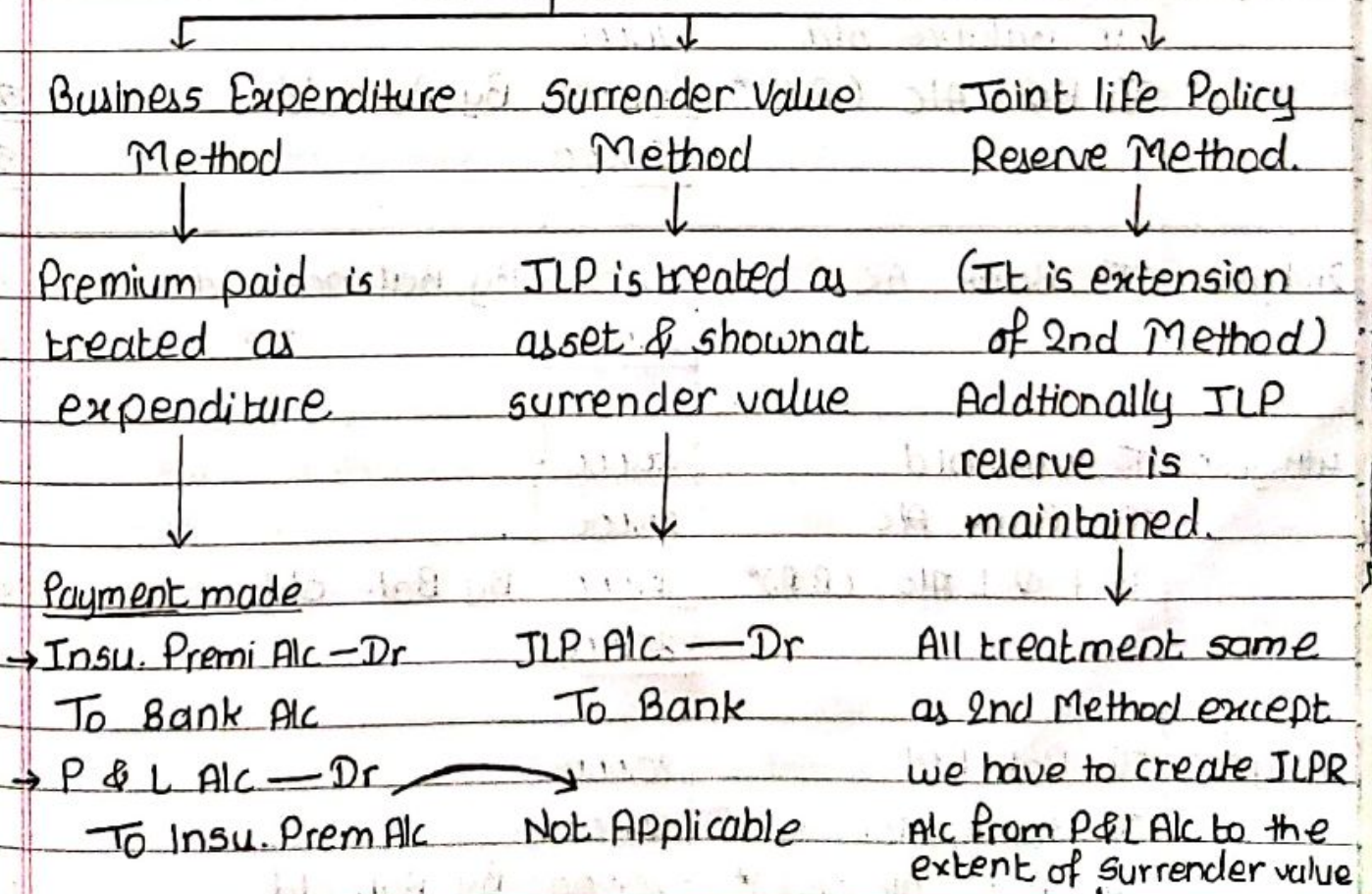
Jointly



Severally



Methods



Additionally entry is made  
 P & L Alc - Dr  
 To JLPR Alc



• Surrender Value Method:

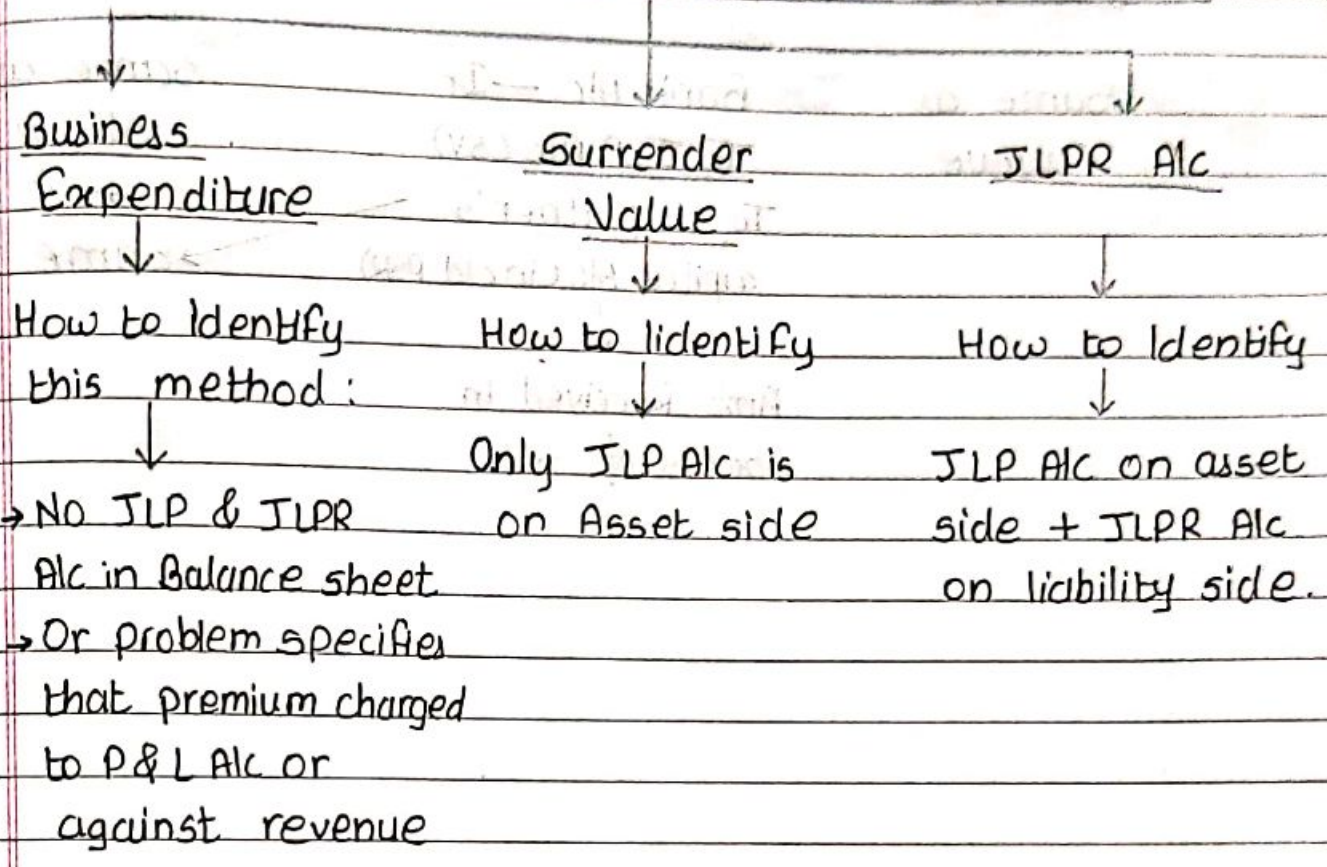
Example:	Premium	Surrender Value
1st year	20,000	0
2nd year	20,000	20,000
3rd year	20,000	50,000
4th year	20,000	80,000
5th year	20,000	1,20,000

JLP Alc (Asset S.V.)

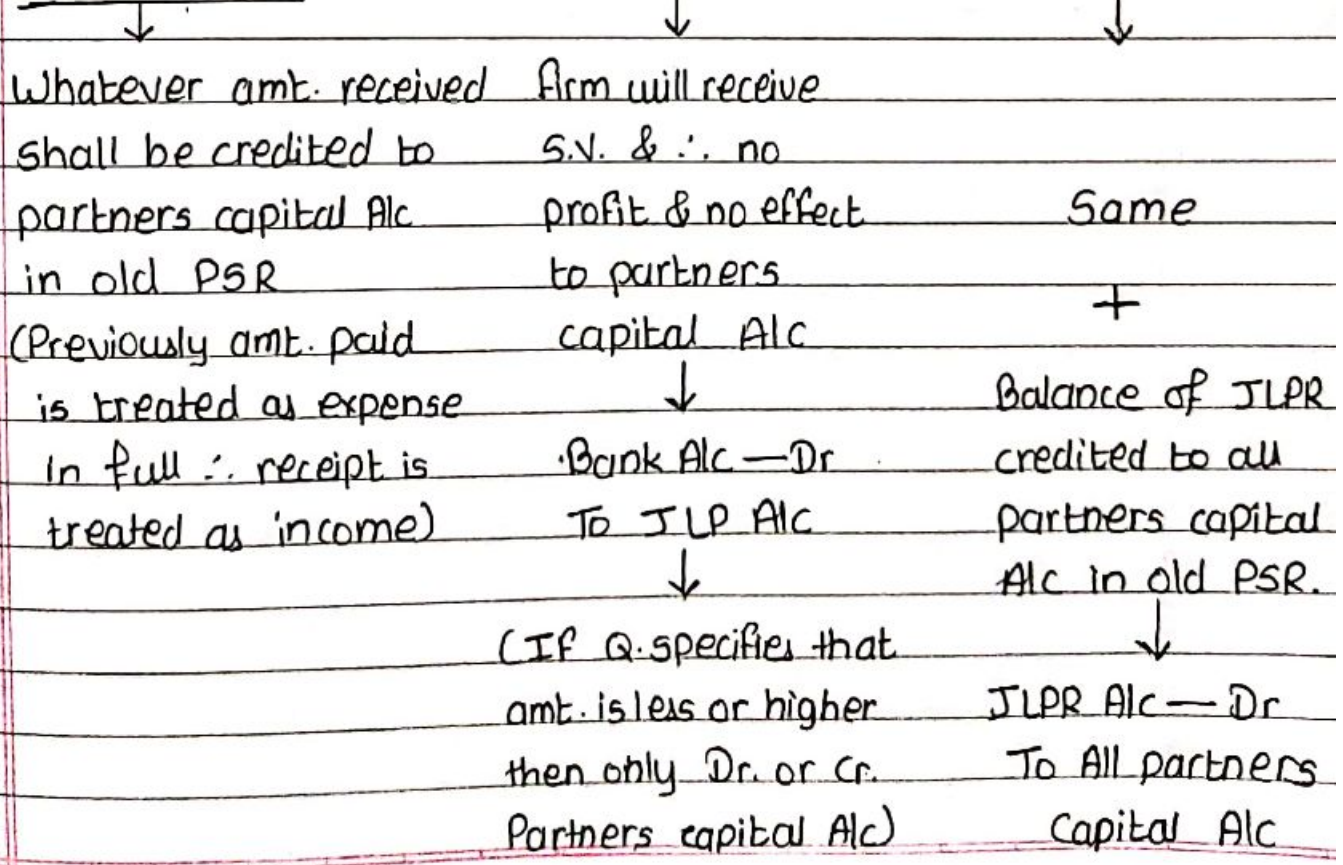
Dr.		Cr.		
1st yr	To Bank Alc	20,000	end. By P&L Alc	20,000
		20,000		20,000
3rd year	To Bank Alc	20,000		
	To Balance bld.	20,000		
	To P&L Alc (B.F)*	10,000	By Bal. cld	50,000
		50,000		50,000
2nd year	To Bank Alc	20,000	By Balance cld	20,000
		20,000		20,000
4th year	To Bal. bld	50,000		
	To Bank Alc	20,000		
	To P&L Alc (B.F)*	10,000	By Bal. cld	80,000
		80,000		80,000
5th year	To Bal. bld	80,000		
	To Bank Alc	20,000		
	To P&L Alc (B.F)*	20,000	By Bal. cld	1,20,000
		1,20,000		1,20,000



Treatment in case of Retirement and Death :



Retirement





In case of Death: (Policy amt. received)

Business expenditure

Same as above

Surrender Value

Bank A/c — Dr  
 To JLP A/c (S.V)

JLPR

same as above

To all partner's capital A/c (in old PPR)

+

→ same



Amt Received in excess of S.V.

+

# Partnership Accounts

## MCQ'S

1. A and B are partner sharing profits and losses in the ratio 5:3. On admission, C brings ₹ 70,000 cash and ₹ 48,000 cash against Goodwill. New profit sharing ratio between A,B,C is 7:5:4. The sacrificing ratio among A and B is:

- A. 3:1      B. 4:7      C. 5:4      D. 2:1

2. A and B are partners sharing profits in the ratio 7:3. C is Admitted as new partner. 'A' surrenders 1/7 of his share and B's Surrenders 1/3<sup>rd</sup> of his share in favour of C. the new profit sharing ratio will be:

- A. 6:2:2      B. 4:1:1      C. 3:2:2      D. None.

3. A and B are partners sharing profits in the ratio 5:3, they admitted C giving him 3/10<sup>th</sup> share of profit. If C acquires 1/5<sup>th</sup> share from A and 1/10<sup>th</sup> from B, new profit sharing ratio will be:

- A. 5:6:3.      B. 2:4:6.      C. 18:24:38.      D. 17:11:12

4. A, B and C are partners sharing profits in the ratio 2:2:1. On retirement of B, goodwill was valued as ₹ 30,000. Find the contribution of A and C to compensate B.

- A. ₹ 20,000 and ₹ 10,000.      B. ₹ 8,000 and ₹ 4,000.  
C. They will not contribute anything.      D. Information is insufficient for any comment.

5. A and B are partners in a firm sharing profits in the ratio of 3:2. They admit C as the new partner for 1/6<sup>th</sup> share in the profits. The firm goodwill was valued at ₹ 1,50,000/-. For adjustment of goodwill, C's account will be debited by

- A. ₹ 20,000.      B. ₹ 15,000.      C. ₹ 25,000.      D. None of the three.

6. A firm has on average profit of ₹ 60,000. Rate of return on capital employed is 12.5% p.a. Total capital employed in the firm was ₹ 4,00,000. Goodwill on the basis of two years purchase of super profits is

- A. ₹ 20,000      B. ₹ 15,000      C. ₹ 10,000      D. None of the above.

7. Find the goodwill of the firm using capitalization method from the following information: Total capital employed in the firm ₹ 80,00,000. Reasonable rate of return 15% Profits for the year ₹ 12,00,000

- A. ₹ 68,00,000.      B. ₹ 12,00,000.      C. ₹ 11,88,000. D. Nil.

8. A firm earns profit of ₹ 1,10,000. The normal rate of return in a similar type of business is 10%. The value of total assets (excluding goodwill) and total outside liabilities are ₹ 11,00,000 and ₹ 1,00,000 respectively. The value of goodwill is

- A. ₹ 1,00,000      B. ₹ 10,00,000      C. Nil.      D. None of the above.

9. X and Y are partners sharing profits and losses in the ratio 5:3. They admitted Z for 1/5<sup>th</sup> share of profits, for which he paid ₹ 1,20,000 against capital and ₹ 60,000 against the Goodwill. Find the capital balances for each partner taking Z's capital as base capital:

- A. ₹ 3,00,000, ₹ 1,20,000, and ₹ 1,20,000  
B. ₹ 3,00,000, ₹ 1,20,000, and ₹ 1,80,000  
C. ₹ 3,00,000, ₹ 1,80,000, and ₹ 1,20,000  
D. ₹ 3,00,000, ₹ 1,80,000, and ₹ 1,80,000

10. A and B are partners of a firm sharing profits in the ratio of 3:2. C was admitted for 1/5<sup>th</sup> share of profit. Machinery would be appreciated by 10% (Block value ₹ 80,000) and Building would be depreciated by 20% (₹ 2,00,000). Unrecorded debtors of ₹ 1,250 would be bought to books and creditors of ₹ 2,750 died and needn't to pay anything. What will be the Profit /Loss on Revaluation?

- A. Loss ₹ 28,000      B. Loss ₹ 40,000  
C. Profit      ₹ 28,000      D. Profit      ₹ 40,000



11. At the time of admission of new partner in a firm, the journal entry for an unrecorded investment of ₹ 30,000 will be:

A. Revaluation A/c.....Dr.	30,000	
To Unrecorded Investment A/c		30,000
B. Unrecorded Investment A/c .....Dr.	30,000	
To revaluation A/c		30,000
C. Partner's Capital A/c .....Dr.	30,000	
To Unrecorded Investment A/c		30,000
D. Unrecorded Investment A/c .....Dr.	30,000	
To Partners capital A/c		30,000

12. Mr. X is a partner in a firm. He withdraws ₹ 200 at the end of each month. If rate of interest is @ 5% p.a., the interest on drawings is

- A. ₹ 65      B. ₹ 55      C. ₹ 60      D. ₹ 50

13. Rishi is a partner in a firm. He withdrew the following amounts during the year ended on 31st December, 2009.

February 1	₹ 12,000
April 30	₹ 6,000
June 30	₹ 9,000
August 31	₹ 12,000
October 1	₹ 8,000
December 31	₹ 7,000

Interest on drawings @ 9% p.a. will be

- A. ₹ 2,295      B. ₹ 2,000      C. ₹ 2,200      D. None of the above

14. The profit of the M/s ABC, a partnership firm before charging managerial commission is ₹ 44,000. The managerial commission is charged @ 10% on profit after charging such commission. The amount of managerial commission will be

- A. ₹ 4,400      B. ₹ 40,000      C. ₹ 4,000      D. ₹ 39,600.

15. A, B, and C are partners sharing profits and losses in the ratio of  $\frac{1}{2}$ ,  $\frac{3}{10}$ , and  $\frac{1}{5}$ . B retires from the firm, A and C decided to share the future profits and losses in 3:2. Calculate gaining ratio:

- A. 1:2      B. 3:2      C. 2:3      D. None

16. A, B and C are partners with profits sharing ratio 4:3:2. B retires. If A & C shares profits of B in 5:3, then find the new profit sharing ratio.

- A. 47:25.      B. 17:11.      C. 31:11.      D. 14:21.

17. A, B, and C were partners in a firm sharing profits and losses in the ratio of 2:2:1. The capital balances of A, B, and C are ₹ 50,000, ₹ 50,000 and ₹ 25,000 respectively. B declared to retire from the firm on 1<sup>st</sup> April, 2008. Balances on reserves on the date was ₹ 15,000. If goodwill of the firm was valued as ₹ 30,000 and profit on revaluation was ₹ 7,050, then what amount will be transferred to the loan account of B?

- A. ₹ 70,820      B. ₹ 50,820      C. ₹ 25,820      D. ₹ 20,820

18. X, Y, Z are partners sharing profits and losses equally. They took a joint life policy of ₹ 5,00,000 with a surrender value of ₹ 3,00,000. The firm treats the insurance premium as an expenses Y retired and Z and Z decided to share profits and losses in 2:1. The amount of Joint Life Policy will be transferred as:

- A. Credited to X, Y and Z's capital Accounts with 1,00,000 each  
 B. Credited to X, Y and Z's capital Account with 1,66,667 each  
 C. Credited to X, and Z capital accounts with ₹ 2,50,000 each  
 D. Credited to Y's capital account with ₹ 3,00,000 each

19. A, B and C takes a Joint Life Policy, after five years B retires from the firm. Old profit sharing ratio is 2:2:1. After retirement A and C decides to share profits equally. They had taken a Joint Life Policy of ₹

2,50,000 with the surrender value ₹ 50,000. What will be the treatment in the partner's capital account on receiving the JLP amount if joint life policy premium is fully charged to revenue as and when paid?

- A. ₹ 50,000 credited to all the partners in old ratio.
- B. ₹ 2,50,000 credited to all the partners in old ratio.
- C. ₹ 2,00,000 credited to all the partners in old ratio.
- D. No treatment is required.

20. A, B and C takes a Joint Life Policy, after five years, B retires from the firm. Old profit sharing ratio is 2:2:1. After retirement A and C decides to share profits equally. They had taken a Joint Life Policy of ₹ 2,50,000 with the surrender value ₹ 50,000. What will be the treatment in the partner's capital account on receiving the JLP amount if joint life policy is maintained at the surrender value?

- A. ₹ 50,000 credited to all the partners in old ratio.
- B. ₹ 2,50,000 credited to all the partners in old ratio.
- C. ₹ 2,00,000 credited to all the partners in old ratio.
- D. No treatment is required.

21. A, B and C takes a Joint Life Policy, after five years B retires from the firm. Old profit sharing ratio is 2:2:1. After retirement A and C decides to share profits equally. They had taken a Joint Life Policy of ₹ 2,50,000 with the surrender value ₹ 50,000. What will be the treatment in the partner's capital account on receiving the JLP amount if joint life policy is maintained at surrender value along with the reserve?

- A. ₹ 50,000 credited to all the partners in old ratio.
- B. ₹ 2,50,000 credited to all the partners in old ratio.
- C. ₹ 2,00,000 credited to all the partners in old ratio.
- D. Distribute JLP Reserve Account in old profit sharing ratio.

## Practical Questions



## Question No. 1

RTP May 2018

On 31<sup>st</sup> March, 2017, the Balance Sheet of P, Q and R sharing profits and losses in proportion to their Capital stood as below:

Liabilities	₹	Assets	₹
Capital Account:		Land and Building	30,000
Mr. P	20,000	Plant and Machinery	20,000
Mr. Q	30,000	Stock of goods	12,000
Mr. R	20,000	Sundry debtors	11,000
Sundry Creditors	10,000	Cash and Bank Balances	7,000
	<b>80,000</b>		<b>80,000</b>

On 1<sup>st</sup> April, 2017, P desired to retire from the firm and remaining partners decided to carry on the business. It was agreed to revalue the assets and liabilities on that date on the following basis:

- (i) Land and Building be appreciated by 20%.
- (ii) Plant and Machinery be depreciated by 30%.
- (iii) Stock of goods to be valued at ₹10,000.
- (iv) Old credit balances of Sundry creditors, ₹2,000 to be written back.
- (v) Provisions for bad debts should be provided at 5%.
- (vi) Joint life policy of the partners surrendered and cash obtained ₹ 7,550.
- (vii) Goodwill of the entire firm is valued at ₹14,000 and P's share of the goodwill is adjusted in the A/cs of Q and R, who would share the future profits equally. No goodwill account being raised.
- (viii) The total capital of the firm is to be the same as before retirement. Individual capital is in their profit sharing ratio.
- (ix) Amount due to Mr. P is to be settled on the following basis: 50% on retirement and the balance 50% within one year.
- (x)

Prepare (a) Revaluation account, (b) The Capital accounts of the partners, (c) Cash account and (d) Balance Sheet of the new firm M/s Q & R as on 1.04.2017.

## Answer

## (a) Revaluation Account

Date	Particulars	₹	Date	Particulars	₹
2017 April	To Plant & Machinery	6,000	2017 April	By Land and building	6,000
	To Stock of goods	2,000		By Sundry creditors	2,000
	To Provision for bad and doubtful debts	550		By Cash & Bank - Joint life Policy surrendered	7,550
	To Capital accounts (profit on revaluation transferred)				
	Mr. P (2/7) 2,000				
	Mr. Q (3/7) 3,000				
	Mr. R (2/7) 2,000				
		<u>7,000</u>			
		<u>15,550</u>			<u>15,550</u>

## (b) Partners' Capital Accounts

Dr.	Cr.
-----	-----

Particulars	P	Q	R	Particulars	P	Q	R
	(₹)	(₹)	(₹)		(₹)	(₹)	(₹)
To P's Capital A/c - goodwill	-	1,000	3,000	By Balance b/d	20,000	30,000	20,000
To Cash & bank A/c - (50% dues paid)	13,000	-	-	By Revaluation A/c	2,000	3,000	2,000
To P's Loan A/c - (50% transfer)	13,000	-	-	By Q & R's Capital A/cs - goodwill	4,000	-	-
To Balance c/d	-	35,000	35,000	By Cash & bank A/c - amount brought in (Balancing figures)	-	3,000	16,000
	<u>26,000</u>	<u>36,000</u>	<u>38,000</u>		<u>26,000</u>	<u>36,000</u>	<u>38,000</u>

## (c) Cash and Bank Account

Particulars	₹	Particulars	₹
To Balance b/d	7,000	By P's Capital A/c - 50% dues paid	13,000
To Revaluation A/c - surrender value of joint life policy	7,550	By Balance b/d	20,550
To Q's Capital A/c	3,000		
To R's Capital A/c	<u>16,000</u>		
	<u>33,550</u>		<u>33,550</u>

## (d) Balance Sheet of M/s Q &amp; R as on 01.04.2017

Liabilities		₹	Assets		₹
Partners' Capital account			Land and Building	30,000	
Mr. Q	35,000		Add: Appreciation 20%	<u>6,000</u>	36,000
Mr. R	<u>35,000</u>	70,000	Plant & Machinery	20,000	
Mr. P's Loan account		13,000	Less: Depreciation 30%	<u>6,000</u>	14,000
Sundry Creditors		8,000	Stock of goods	12,000	
			Less: revalued	<u>2,000</u>	10,000
			Sundry Debtors	11,000	
			Less: Provision for bad debts 5%	<u>550</u>	10,450
			Cash & Bank balances		<u>20,550</u>
		<u>91,000</u>			<u>91,000</u>

## Working Notes:

## Adjustment for Goodwill:



Goodwill of the firm = 14,000  
 Mr. P's Share (2/7) = 4,000  
 Gaining ratio of Q & R;  
 $Q = \frac{1}{2} - \frac{3}{7} = \frac{1}{14}$   
 $R = \frac{1}{2} - \frac{2}{7} = \frac{3}{14}$   
 Q:R = 1:3  
 Therefore, Q will bear -  $\frac{1}{4} \times 4000$  or ₹1,000  
 R will bear =  $\frac{3}{4} \times 4000$  or ₹3,000

**Question No. 2****RTP Nov. 2018 , Mock Test April 2019 (10 Marks)**

Neha & Co. is a partnership firm with partners Mr. P, Mr. Q and Mr. R, sharing profits and losses in the ratio of 10:6:4. The balance sheet of the firm as at 31<sup>st</sup> March, 2018 is as under:

Liabilities		₹	Assets	₹
Capitals:			Land	10,000
Mr. P	80,000		Buildings	2,00,000
Mr. Q	20,000		Plant and machinery	1,30,000
Mr. R	30,000	1,30,000	Furniture	43,000
Reserves			Investments	12,000
(un-appropriated profit)		20,000	Inventories	1,30,000
Long Term Debt		3,00,000	Trade receivables	1,39,000
Bank Overdraft		44,000		
Trade payables		1,70,000		
		6,64,000		6,64,000

It was mutually agreed that Mr. Q will retire from partnership and in his place Mr. T will be admitted as a partner with effect from 1<sup>st</sup> April, 2018. For this purpose, the following adjustments are to be made:

- Goodwill is to be valued at ₹1 lakh but the same will not appear as an asset in the books of the reconstituted firm.
- Buildings and plant and machinery are to be depreciated by 5% and 20% respectively. Investments are to be taken over by the retiring partner at ₹ 15,000. Provision of 20% is to be made on Trade receivables to cover doubtful debts.
- In the reconstituted firm, the total capital will be ₹ 2 lakhs which will be contributed by Mr. P, Mr. R and Mr. T in their new profit sharing ratio, which is 2:2:1.
  - The surplus funds, if any, will be used for repaying bank overdraft.
  - The amount due to retiring partner shall be transferred to his loan account.

**Required:**

Prepare

- Revaluation account;
- Partners' capital accounts;
- Bank account; and
- Balance sheet of the reconstituted firm as on 1st April, 2018.

**Answer**

## Revaluation Account

	₹		₹
To Buildings A/c	10,000	By Investments A/c	3,000
To Plant and Machinery A/c	26,000	By Loss to Partners:	
To Provision for Doubtful Debts A/c	27,800	P	30,400
		Q	18,240
		R	<u>12,160</u>
	63,800		60,800
			63,800

## Capital Accounts of Partners

Particulars	P	Q	R	T	Particulars	P	Q	R	T
	₹	₹	₹	₹		₹	₹	₹	₹
To Revaluation	30,400	18,240	12,160	-	By Balance b/d	80,000	20,000	30,000	-
To Invt. A/c	-	15,000	-	-	By Reserves A/c	10,000	6,000	4,000	-
To Q's Loan A/c	-	22,760	-	-	By R and T's Capital A/c	10,000	30,000	-	-
To P and Q's Capital A/c			20,000	20,000	By Bank A/c (balancing figure)	10,400	-	78,160	60,000
To Balance c/d		-							
	<u>80,000</u>		<u>80,000</u>	<u>40,000</u>					
	<b>1,10,400</b>	<b>56,000</b>	<b>1,12,160</b>	<b>60,000</b>		<b>1,10,400</b>	<b>56,000</b>	<b>1,12,160</b>	<b>60,000</b>

## Bank Account

	₹		₹
To P's capital A/c	10,400	By Bank Overdraft A/c	44,000
To R's capital A/c	78,160	By Balance c/d	1,04,560
To T's capital A/c	60,000		
	1,48,560		1,48,560

Balance Sheet of NEHA Co.as at 1<sup>st</sup> April, 2018

Liabilities	₹	₹	Assets	₹	₹
Capital Accounts:			Land		10,000
P	80,000		Buildings		1,90,000
Q	80,000		Plant and Machinery		1,04,000
R	40,000	2,00,000	Furniture		43,000
Long Term Debts		3,00,000	Inventories		1,30,000
Trade payables		1,70,000	Trade receivables		1,39,000



Q's Loan Account		22,760	Less: Provision for Doubtful Debts	(27,800)	1,11,200
			Balance at Bank		1,04,560
		<b>6,92,760</b>			<b>6,92,760</b>

## Question No. 3

RTP May 2019

A and B are partners in a firm, sharing Profits and Losses in the ratio of 3 : 2. The Balance Sheet of A and B as on 1.1.2018 was as follow:

Liabilities	Amount ₹	Amount ₹	Assets	Amount ₹	Amount ₹
Sundry Creditors		12,900	Building		26,000
Bill Payable		4,100	Furniture		5,800
Bank Overdraft		9,000	Stock-in-Trade		21,400
Capital Account:			Debtors		35,000
A	44,000		Less: Provision	200	34,800
B	<u>36,000</u>	80,000	Investment		2,500
			Cash		<u>15,500</u>
		<u>1,06,000</u>			<u>1,06,000</u>

'C' was admitted to the firm on the above date on the following terms:

- He is admitted for 1/6th share in future profits and to introduce a Capital of ₹ 25,000.
- The new profit sharing ratio of A, B and C will be 3 : 2 : 1 respectively.
- 'C' is unable to bring in cash for his share of goodwill, partners therefore, decide to raise goodwill account in the books of the firm. They further decide to calculate goodwill on the basis of 'C's share in the profits and the capital contribution made by him to the firm.
- Furniture is to be written down by ₹ 870 and Stock to be depreciated by 5%. A provision is required for Debtors @ 5% for Bad Debts. A provision would also be made for outstanding wages for ₹ 1,560. The value of Buildings having appreciated be brought upto ₹ 29,200. The value of investment is increased by ₹ 450.
- It is found that the creditors included a sum of ₹ 1,400, which is not to be paid off.

Prepare the following:

- Revaluation Account.
- Partners' Capital Accounts.
- Balance Sheet of New Partnership firm after admission of 'C'.

## Answer

## (i) Revaluation Account

	₹		₹
To Furniture	870	By Building	3,200
To Stock	1,070	By Sundry creditors	1,400
To Provision of doubtful debts (₹1,750 - 1,550 ₹ 200)	1,550	By Investment	450
To Outstanding wages	<u>1,560</u>		
	<u>5,050</u>		<u>5,050</u>

**(ii) Partners' Capital Accounts**

	A	B	C		A	B	C
	₹	₹	₹		₹	₹	₹
To Balance c/d	71,000	54,000	25,000	By Balance b/d	44,000	36,000	-
				By Cash A/c	-	-	25,000
				By Goodwill A/c (Working Note)	27,000	18,000	
	<b>71,000</b>	<b>54,000</b>	<b>25,000</b>		<b>71,000</b>	<b>54,000</b>	<b>25,000</b>

**(iii) Balance Sheet of New Partnership Firm (after admission of C) as on 1.1.18**

Liabilities	₹	Assets	₹
Capital Accounts:		Goodwill	45,000
A 71,000		Building (26,000 + 3,200)	29,200
B 54,000		Furniture (5,800 - 870)	4,930
C <u>25,000</u>	1,50,000	Stock-in-trade (21,400 - 1,070)	20,330
Bills Payable	4,100	Debtors 35,000	
Bank Overdraft	9,000	Less: Provision for bad debts ( <u>1,750</u> )	33,250
Sundry creditors (12,900-1,400)	11,500	Investment (2,500 + 450)	2,950
Outstanding wages	<u>1,560</u>	Cash (15,500 + 25,000)	<u>40,500</u>
	1,76,160		1,76,160

**Working Note:****Calculation of goodwill**

C's contribution of ₹ 25,000 consists only 1/6th of capital.

Therefore, total capital of firm should be ₹ 25,000 × 6 = ₹ 1,50,000.

But combined capital of A, B and C amounts ₹ 44,000 + 36,000 + 25,000 = ₹ 1,05,000.

Thus Hidden goodwill is ₹ 45,000 (₹ 1,50,000 - ₹ 1,05,000).

**Question No. 4****May 2018 (10 Marks)**

A, B and C are partners sharing profits in the ratio of 3:2:1. Their Balance Sheet as at 31<sup>st</sup> March, 2018 stood as:



Liabilities		₹	Assets		₹
Capital Accounts			Building		10,00,000
A	8,00,000		Furniture		2,40,000
B	4,20,000		Office equipments		2,80,000
C	<u>4,00,000</u>	16,20,000	Stock		2,50,000
Sundry Creditors		3,70,000	Sundry debtors	3,00,000	
General Reserves		3,60,000	Less: Provision for Doubtful debts	<u>30,000</u>	2,70,000
			Joint life policy		1,60,000
			Cash at Bank		<u>1,50,000</u>
		23,50,000			23,50,000

B retired on 1<sup>st</sup> April, 2018 subject to the following conditions:

- Office Equipments revalued at ₹ 3,27,000.
- Building revalued at ₹ 15,00,000. Furniture is written down by ₹ 40,000 and Stock is reduced to ₹ 2,00,000.
- Provision for Doubtful Debts is to be created @ 5% on Debtors.
- Joint Life Policy will appear in the Balance Sheet at surrender value after B's retirement. The surrender value is ₹ 1,50,000
- Goodwill was to be valued at 3 years purchase of average 4 years profit which were:

Year	₹
2014	90,000
2015	1,40,000
2016	1,20,000
2017	1,30,000

- Amount due to B is to be transferred to his Loan Account.

Prepare the Revaluation Account, Partners' Capital Accounts and the Balance Sheet immediately after B's retirement.

## Answer

### Revaluation Account

	₹		₹
To Furniture A/c	40,000	By Office equipment A/c	47,000
To Stock A/c	50,000	By Building A/c	5,00,000
To Joint life policy	10,000	By Provision for doubtful debts	15,000
To Partners' capital A/cs:			
A	2,31,000		
B	1,54,000		
C	77,000		
	<u>4,62,000</u>		
	<u>5,62,000</u>		<u>5,62,000</u>

### Partners' Capital Accounts

	A	B	C		A	B	C
	₹	₹	₹		₹	₹	₹

To B's Capital A/c	90,000	-	30,000	By Balance b/d	8,00,000	4,20,000	4,00,000
To B's loan A/c		8,14,000		By General Reserve	1,80,000	1,20,000	60,000
To Balance c/d	11,21,000		5,07,000	By revaluation reserve	2,31,000	1,54,000	77,000
				By A's capital A/c		90,000	
				By C's capital A/c		30,000	
	12,11,000	8,14,000	5,37,000		12,11,000	8,14,000	5,37,000

**Balance Sheet as on 1.4.2018 (After B's retirement)**

Liabilities	₹	₹	Assets	₹	₹
Capital accounts:			Building		15,00,000
A	11,21,000		Furniture		2,00,000
C	<u>5,07,000</u>	16,28,000	Office equipment		3,27,000
B's loan account		8,14,000	Stock		2,00,000
Sundry creditors		3,70,000	Sundry debtors		3,00,000
			Less: Provision for doubtful debts	(15,000)	2,85,000
			JLP		1,50,000
			Cash at bank		<u>1,50,000</u>
		28,12,000			28,12,000

**Working Notes:**

**Calculation of goodwill:**

**1. Average of last 4 year's profit**

$$= (90,000 + 1,40,000 + 1,20,000 + 1,30,000) / 4 = ₹ 1,20,000$$

**2. Goodwill at three years' purchase**

$$= ₹ 1,20,000 \times 3 = ₹ 3,60,000$$

**Goodwill adjustment**

	Share of goodwill (Old ratio)	Share of goodwill (New ratio)	Adjustment
<b>A</b>	1,80,000	2,70,000	90,000 (Dr.)
<b>B</b>	1,20,000	-	1,20,000 (Cr.)
<b>C</b>	60,000	90,000	30,000 (Dr.)



# INVENTORY

- Inventory : Depends on business.

## Types of Business.

Purchases of Goods	Printing & Stationery	Laptop dealer	Car dealer.
Purchase of laptop.	Asset	Stock	Asset.
Printing & Stationery	Stock	Expenses	Expenses.
Car.	Asset	Asset	Stock.

- Inventory Includes :-

- ① Raw Material
- ② Work in Progress
- ③ Finished Goods

- Agent : A person acting on behalf of others



# Valuation of Inventories

At cost

or

Net Realisable Value

Goods are Homogenous

Goods are not Homogenous

(Whichever is less)

①. For finished Goods



Methods:-

① Specific Identification Method.

Sale Price / - Selling Market Price - Exp.

① FIFO

② LIFO

③ Simple Average

④ Weighted Average

② For W.I.P.



Sale Price (-) Expected selling exp. (-) Expected cost of completion.

③ For Raw Material



For raw material there is no NRV but there is replacement cost.



Valuation depends on Finished Goods:-

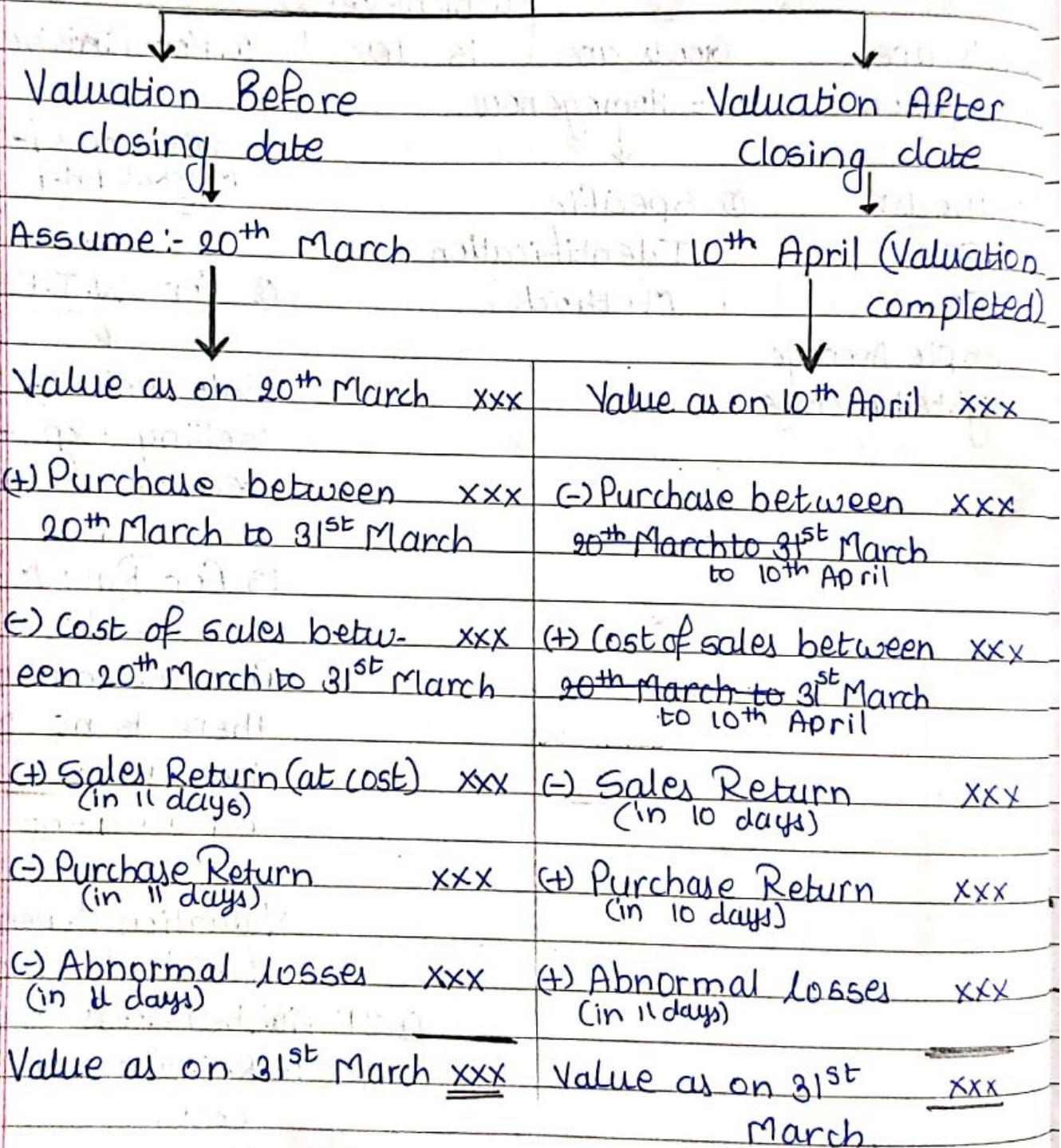
① IF finished Goods valued at cost :- R.M. also valued at cost.

② IF F.G. Valued at NRV R.M. valued at replacement cost.



• Valuation of Inventories Before or After Closing Date.

Assume that Closing Date is 31<sup>st</sup> March.





## SYSTEM FOR RECORDING INVENTORY.

### Perpetual Recording System

Under this system, all transactions related to purchase, sales etc. are regularly recorded

Generally adopted by Large Business

Opening	xxx
(+) Purchase	xxx
(-) C.O.G.S	(xxx)

Closing Stock xxx

In this method loss gets included in Closing Stock

### Periodical System

Not recorded continuously (Regularly)

Generally adopted by Small Business.  
 (Periodic inventories - Physical stock taking)

Opening	xxx
(+) Purchase	xxx
(-) Closing	(xxx)

Cost of goods sold xxx

In this method loss gets included in C.O.G.S.

\* Note :- To find out loss/shortage/pilferage. We shall find out closing stock by perpetual system & that should be compared with physical stock as per periodical system & difference is loss.



• Difference Between Physical Stock and Stock as per Record.

Physical Stock

Stock as per Record.

It is the stock available physically in Godown/shop on the date of valuation

It is the stock which belongs to us. (Ownership held by us even though possession is with others)

Finding stock as per record / Balance sheet from Physical Stock.

Physical stock closing date	xxx
(+) Sale on approval	(xxx)
(+) Goods with Consignee/Agent	xxx
(+) Goods in Transit	xxx
(Goods purchased but not recrd)	
(-) Goods sold but not sent	(xxx)
(-) Goods of consignor	(xxx)
(-) Goods taken from seller on Approval basis	(xxx)
E.T.C.	
	xxx



\* Formula for Weighted Average =  $\frac{\text{Total Cost}}{\text{Total Qty.}}$

Weighted Average Cost shall be calculated everytime whenever there are more than one goods at different price.

\* Find out cost of goods sold and any missing figure related to goods.

Opening stock	xxx
(+) Purchase	xxx
(+) Expenses on Purchase	xxx
e.g. Carriage Inward / Freight	
(+) Manufacturing expenses	xxx
(-) Purchase Return	xxx
(-) Closing Stock	xxx
Cost of Goods Sold	xxx
(+) <u>Gross Profit</u>	xxx
<u>Sales</u>	<u>xxx</u>



- If any other information is missing like opening stock, Purchase, closing then follow this formula in Reverse way.

∴ COGS can be calculated:

①  $\text{Opening} + \text{Purchase} + \text{Exp.} - \text{closing}$

OR

②  $\text{Sales} - \text{Gross Profit}$

14519.

\* ADJUSTED SELLING PRICE METHOD:

In this method, closing stock is given at selling price and we are required to find out closing stock at cost price.

(% of G.P. or G.P. is not available)

• How to calculate cost price:-

- 1) Find out total goods available for sale at cost price :-  $\text{Opening stock} + \text{Purchase (including in year expenses)}$
- 2) Stock available for sale at selling price:  
 $\text{Sales} + \text{Closing stock at sale price}$



3) Find out G.P. (assuming that all goods are sold) :-

Step (2) Goods available for sale at selling price	xxx
- Step (1) Goods available for sale at cost price	xxx
	xxx

4) Find out % of G.P. on sales (step 2) :-

$$\frac{\text{Expected G.P.}}{\text{Goods available for sale at selling price}} \times 100$$

5) Closing stock at cost price :-

$$\text{Closing stock at S.P.} - \text{Gross Profit \% (Step 4)}$$



# Inventories

## Multipal Choice Questions

1. The books of T Ltd. revealed the following information:

Particular	₹
Opening inventory	6,00,000
Purchases during the year 2010-2011	34,00,000
Sales during the year 2010-2011	48,00,000

On March 31, 2011, the value of inventory as per physical Inventory-taking was Rs. 3,25,000. The company's gross profit on sales has remained constant at 25%. The management of the company suspects that some inventory might have been pilfered by a new employee. What is the estimated cost of missing inventory?

A.Rs. 75,000      B.Rs. 25,000      C.Rs. 1,00,000      D.Rs. 1,50,000.

## Practical Questions

### Question No. 1

M/s X, Y and Z are in retail business, following information are obtained from their records for the year ended 31st March, 2016:

Goods received from suppliers (subject to trade discount and taxes)	₹15,75,500
Trade discount 3% and sales tax 11%	
Packaging and transportation charges	₹87,500
Sales during the year	₹22,45,500
Sales price of closing inventories	₹2,35,000

Find out the historical cost of inventories using adjusted selling price method.

### Question No. 2

A trader prepared his accounts on 31st March, each year. Due to some unavoidable reasons, no inventory taking could be possible till 15th April, 2017 on which date the total cost of goods in his godown came to ₹ 5,00,000. The following facts were established between 31st March and 15th April, 2017.

- (i) Sales ₹ 4,10,000 (including cash sales ₹ 1,00,000)  
(ii) Purchases ₹ 50,340 (including cash purchases ₹ 19,900) (iii) Sales Return ₹ 10,000.

Goods are sold by the trader at a profit of 20% on sales.

You are required to ascertain the value of inventory as on 31st March, 2017.

**Question No. 3**

The following are the details of a spare part of Sriram Mills:

1-1-2016	Opening Inventory	Nil
1-1-2016	Purchases	100 units @ ₹ 30 per unit
15-1-2016	Issued for consumption	50 units
1-2-2016	Purchases	200 units @ ₹ 40 per unit
15-2-2016	Issued for consumption	100 units
20-2-2016	Issued for consumption	100 units

Find out the value of Inventory as on 31-3-2016 if the company follows Weighted Average basis.



# BILLS OF EXCHANGE.

- Negotiable Instrument : Easily Transferable.  
↓  
Here, Written Document.
- Bearer Instrument can be transferred by delivery.
- Order Instrument can be transferred by endorsement + delivery.
- Debtor : To whom goods are sold on credit and had given oral promise.
- Bills Receivable : Written promise is given by person to whom goods are sold on credit.
- Promissory Note : ~~AA~~ Can not be issued by individual and it can be issued by only RBI.  
(Bearer) → currency
- Bearer/Holder : Amount is paid to person who has note/cheque.



Time Instrument	Demand Instrument
<ul style="list-style-type: none"><li>- In case of time instrument amount is payable after particular days, month or on particular event.</li></ul>	Amount is payable immediately when demanded/Requested. (No need to wait for minimum time)
<ul style="list-style-type: none"><li>- Example:- Payable 80 days after sight / presentment</li></ul>	<u>Example:-</u> Payable at sight / Payable at presentment.
<ul style="list-style-type: none"><li>- 3 grace days are available.</li></ul>	No grace days.  Cheque is best example of Demand Instrument.



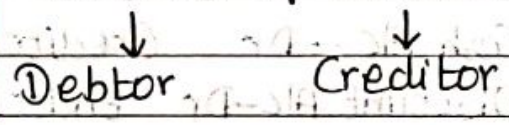
### Promissory Note



→ Unconditional or promise to pay

→ This is drawn by Debtor / Buyer

→ There are 2 parties  
Drawer & Drawee / Payee



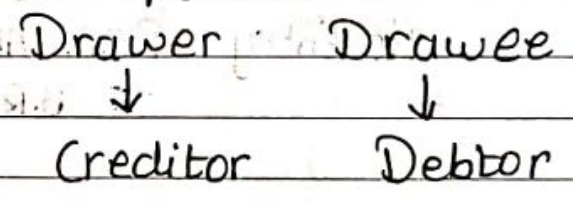
### Bills of Exchange



→ Unconditional order to pay

→ This is drawn by Creditor / Seller

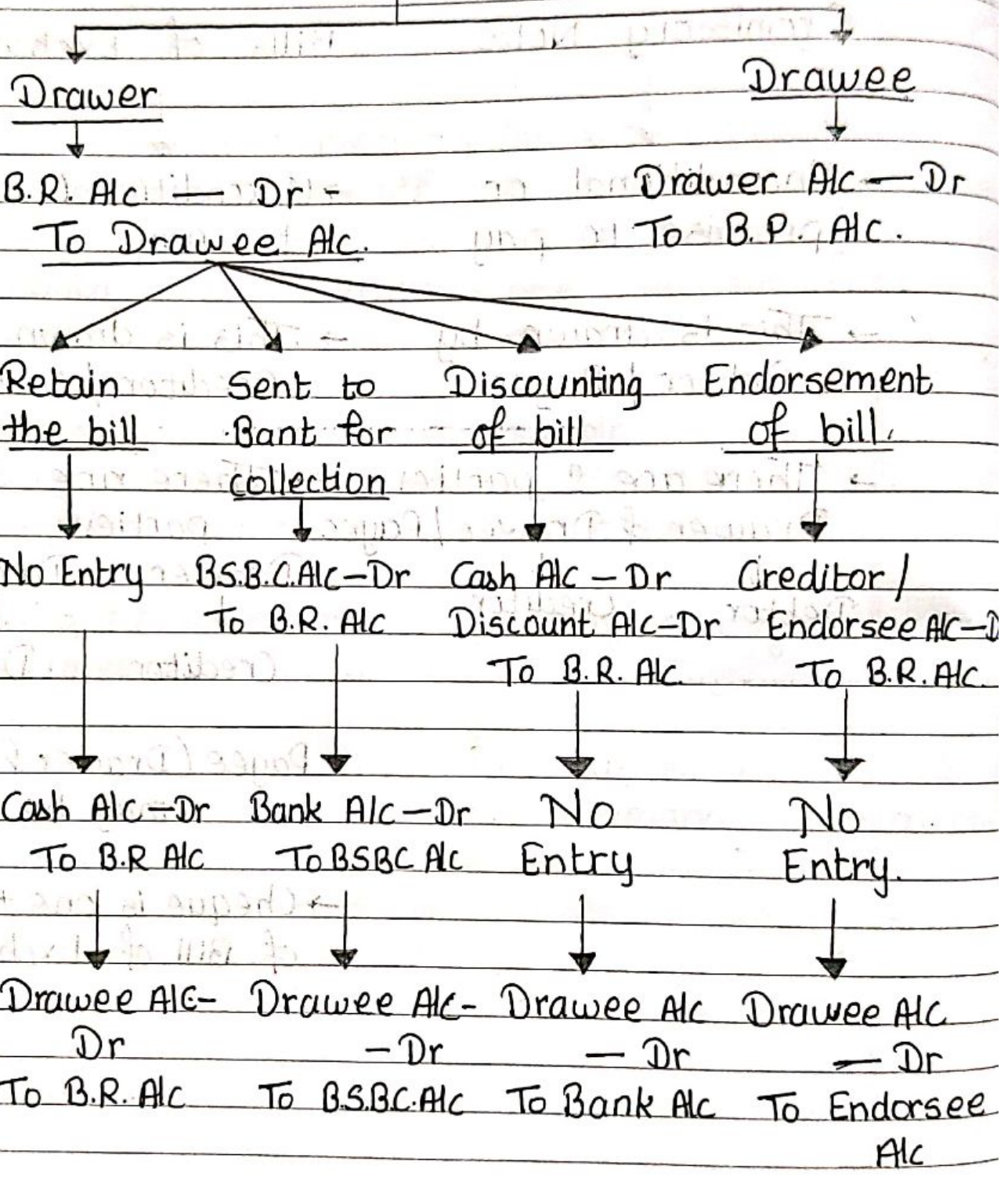
→ There are 3 parties



Payee (Drawer & Payee may be same)

→ Cheque is one type of Bill of Exchange.

**Bill**





• DISCOUNTING OF BILL:

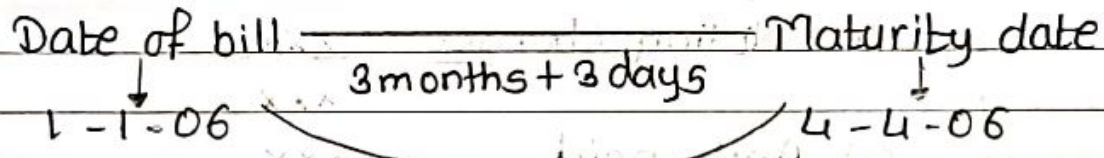
Drawer may approach the bank for early payment of bill and Bank may pay bill after deducting discount/interest for the period of early payment from date of Discounting to Maturity date.

Example:

MCA.16

Date of bill = 1-1-06.

Period of bill = 3 months, i.e. 4-4-06.



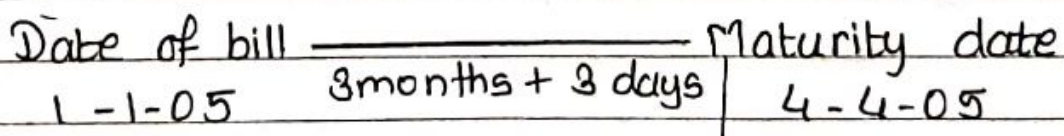
3 months early payment

$$\therefore 2,00,000 \times \frac{12}{100} \times \frac{3}{12} = 6,000.$$

• REBATE:

Drawee may make early payment to Drawer (Payment before maturity date) then in such case drawer may give discount equivalent to interest for the period of early payment. (Date of payment to maturity date).

MCA.14



4-03-05  
 1 month early payment by drawee

$$= 10,000 \times 12\% \times \frac{1}{12}$$

$$= \boxed{100}$$

$$\text{Amt. Paid} = 10,000 - 100 = \boxed{9,900}$$



## • RENEWAL OF BILL:

Drawee may request Drawer to cancel previous bill due to non availability of funds and make new bill. In this case previous bill is treated as dishonoured and noting charges may be paid on such bill. While calculating amount of bill following format should be followed :-

Amount of	xxx
previous bill	
(+) Noting Charges	xxx
	xxx
(-) Amt. paid	xxx
(if any)	
Balance	xxx
(+) Int. on bal.	xxx
amt. for delay	
Amt. of new bill	xxx



• ACCOMODATION:

- IF bill is drawn for consideration then it is Trade Bill.
- IF bill is drawn <sup>& signed</sup> <sup>without</sup> for consideration but just to help other party then it is Accommodation bill.
- Mutual Accomodation:  
Bill drawn and signed for the mutual benefit. The bill will be discounted with bank and proceeds of bill shall be distributed by party.
- Discounting charges shall also be distributed in proportion to sharing of amount.

25/6/19.

• AVERAGE DUE DATE:

- Due Date: Date on which amount is payable/ due.  
e.g. Suppose X sold goods to Y on 25th June with credit period of 1 month then due date is 25th July.

- Average Due Date (ADD):

ADD shall be calculated where there are frequent transactions between same

# Bills of Exchange

**Question No. 1**

**RTP May 2018**

Mr. B accepted a bill for ₹ 10,000 drawn on him by Mr. A on 1<sup>st</sup> August, 2017 for 3 months. This was for the amount which B owed to A. On the same date Mr. A got the bill discounted at his bank for ₹ 9,800.

On the due date, B approached A for renewal of the bill. Mr. A agreed on condition that ₹ 2,000 be paid immediately along with interest on the remaining amount at 12% p.a. for 3 months and that for the remaining balance B should accept a new bill for 3 months. These arrangements were carried through. On 31<sup>st</sup> December, 2017, B became insolvent and his estate paid 40%.

Prepare Journal Entries in the books of Mr. A

## Answer

Date	Particulars	L.F.	Dr. Amount ₹	Cr. Amount ₹
2017 August 1	Bills Receivable A/c.....Dr. To B (Being the acceptance received from B to settle his account)		10,000	10,000
1 August	Bank A/c.....Dr. Discount A/c.....Dr. To Bills Receivable (Being the bill discounted for ₹ 9,800 from bank)		9,800 200	10,000
4 November	B.....Dr. To Bank Account (Being the B's acceptance is to be renewed)		10,000	10,000
4 November	B .....Dr. To Interest Account (Being the interest due from B for 3 months i.e., 8000 x 3/12 x 12%=240)		240	240
4 November	Cash A/c .....Dr. Bills Receivable A/c.....Dr. To B (Being amount and acceptance of new bill received from B)		2,240 8,000	10,240
31 December	B A/c .....Dr. To Bills Receivable A/c (Being B became insolvent)		8,000	8,000
31 December	Cash A/c.....Dr. Bad debts A/c.....Dr. To B (Being the amount received and written off on B's insolvency)		3,200 4,800	8,000



## Question No. 2

RTP Nov. 2018

Prepare Journal entries for the following transactions in K. Katrak's books.

- i. Katrak's acceptance to Basu for ₹ 2,500 discharged by a cash payment of ₹ 1,000 and a new bill for the balance plus ₹ 50 for interest.
- ii. G. Gupta's acceptance for ₹ 4,000 which was endorsed by Katrak to M. Mehta was dishonoured. Mehta paid ₹ 20 noting charges. Bill withdrawn against cheque.
- iii. D. Dalal retires a bill for ₹ 2,000 drawn on him by Katrak for ₹ 10 discount.
- iv. Katrak's acceptance to Patel for ₹ 5,000 discharged by Patel Mody's acceptance to Katrak for a similar amount.

## ANSWER

## Books of K. Katrak Journal Entries.

		₹	₹
i.	Bills Payable Account Interest Account To Cash A/c To Bills Payable Account (Bills Payable to Basu discharged by cash payment of ₹ 1,000 and a new bill for ₹1,550 including ₹ 50 as interest)	2,500 50	1,000 1,550
ii.	(a) G. Gupta To M. Mehta (G. Gupta's acceptance for ₹ 4,000 endorsed to M. Mehta dishonoured, ₹ 20 paid by M. Mehta as noting charges)	4,020	4020
	(b) M. Mehta To Bank Account (Payment to M. Mehta on withdrawal of bill earlier received from Mr. G. Gupta)	4,020	4,020
iii.	Bank Account Discount Account To Bills Receivable Account (Payment received from D. Dalal against his acceptance for ₹ 2,000. Allowed him a discount of ₹ 10)	1,990 10	2,000
iv.	Bills Payable Account To Bills Receivable Account (Bills Receivable from Mody endorsed to Patel in settlement of bills payable issued to him earlier)	5,000	5,000

## Question No. 3

RTP May 2019

Rita owed ₹1,00,000 to Siriman. On 1st October, 2018, Rita accepted a bill drawn by Siriman for the amount at 3 months. Siriman got the bill discounted with his bank for ₹99,000 on 3rd October, 2018. Before the due date, Rita approached Siriman for renewal of the bill. Siriman agreed on the conditions that ₹50,000 be paid immediately together with interest on the remaining amount at 12% per annum for 3 months and for the balance, Rita should accept a new bill at three months. These arrangements were carried out. But afterwards, Rita became insolvent and 40% of the amount could be recovered from his estate.

Pass journal entries (with narration) in the books of Siriman.

## ANSWER

Particulars	L.F.	₹	₹
Bills Receivable A/c To Rita (Being a 3 month's bill drawn on Rita for the amount due)	Dr.	1,00,000	1,00,000
Bank A/c Discount A/c To Bills Receivable A/c (Being the bill discounted)	Dr. Dr.	99,000 1,000	1,00,000
Rita To Bank A/c (Being the bill cancelled up due to Rita's inability to pay it)	Dr.	1,00,000	1,00,000
Rita To Interest A/c (Being the interest due on ₹ 50,000 @ 12% for 3 months)	Dr.	1,500	1,500

Bank A/c To Rita (Being the receipt of a portion of the amount due on the bill together with interest)	Dr.	51,500	51,500
Bills Receivable A/c To Rita (Being the new bill drawn for the balance)	Dr.	50,000	50,000
Rita To Bills Receivable A/c (Being the dishonour of the bill due to Rita's insolvency)	Dr.	50,000	50,000
Bank A/c Bad Debts A/c To Rita (Being the receipt of 40% of the amount due on the bill from Rita's estate)	Dr. Dr.	20,000 30,000	50,000



## Question No. 4

Mock Test March 2019 (10 Marks)

Mr. B accepted a bill for Rs. 10,000 drawn on him by Mr. A on 1<sup>st</sup> August, 2017 for 3 months. This was for the amount which B owed to A. On the same date Mr. A got the bill discounted at his bank for Rs. 9,800.

On the due date, B approached A for renewal of the bill. Mr. A agreed on condition that Rs. 2,000 be paid immediately along with interest on the remaining amount at 12% p.a. for 3 months and that for the remaining balance B should accept a new bill for 3 months. These arrangements were carried through. On 31<sup>st</sup> December, 2017, B became insolvent and his estate paid 40%.

Prepare Journal Entries in the books of Mr. A

## Answer

Date		Particulars	L.F.	Dr. Amt ₹	Cr. Amt ₹
2017 August	1	Bills Receivable A/c Dr. To B (Being the acceptance received from B to settle his account)		10,000	10,000
August	1	Bank A/c .....Dr. Discount A/c .....Dr. To Bills Receivable (Being the bill discounted for ₹ 9,800 from bank)		9,800 200	10,000
November	4	B A/c .....Dr. To Bank Account (Being the B's acceptance is to be renewed)		10,000	10,000
November	4	B.....Dr. To Interest Account (Being the interest due from B for 3 months i.e., $8000 \times 3/12 \times 12\% = 240$ )		240	240
November	4	Cash A/c.....Dr. Bills Receivable A/c.....Dr. To B (Being amount and acceptance of new bill received from B)		2,240 8,000	10,240
December	31	B A/c.....Dr. To Bills Receivable A/c (Being B became insolvent)		8,000	8,000
December	31	Cash A/c.....Dr. Bad debts A/c.....Dr. To B (Being the amount received and written off on B's insolvency)		3,200 4,800	8,000

• ACCOMODATION:

- IF bill is drawn for consideration then it is Trade Bill.
- IF bill is drawn <sup>& signed</sup> <sup>without</sup> for consideration but just to help other party then it is Accommodation bill.
- Mutual Accomodation:  
Bill drawn and signed for the mutual benefit. The bill will be discounted with bank and proceeds of bill shall be distributed by party.
- Discounting charges shall also be distributed in proportion to sharing of amount.

25/6/19.

• AVERAGE DUE DATE:

- Due Date: Date on which amount is payable/ due.  
e.g. Suppose X sold goods to Y on 25th June with credit period of 1 month then due date is 25th July.

- Average Due Date (ADD):

ADD shall be calculated where there are frequent transactions between same



parties with different due dates and parties are willing to settle their A/c (Full Payment) on single date.

• ADD means date on which there is no loss of interest to any party.

• Steps For Calculation of ADD:

1) Calculate due date for each transaction.  
(Date of transaction + credit period)  
(Where credit period is not given then date of transaction is treated as due date)

2) Select Base date / zero date from the above due dates. (Preferably earlier date shall be taken as due date)

3) Calculate number of days from Base date to Actual due date.  
(Always ignore first date and include last day)

4) IF days are in Calculate <sup>Total</sup> product for each due date. No. of days X Amt.

5) $ADD = \text{Base Date} + \frac{\text{Total of Product}}{\text{Total of Days Amt.}}$
---



Calculation of average due date where amount is repaid in installments.

Base date = Date on which loan is taken.

$$\frac{\text{Average Due Date}}{\text{Date.}} = \frac{\text{Date of loan} + \text{Sum of no. of yrs/months/days from the date of lending to the date of repayment of each installments.}}{\text{No. of Installments}}$$



# Average Due Date

**Question No. 1**

**RTP May 2018**

Calculate average due date from the following information:

Date of bill	Term	Amount (₹)
1 <sup>st</sup> March, 2017	2 months	4,000
10 <sup>th</sup> March, 2017	3 months	3,000
5 <sup>th</sup> April, 2017	2 months	2,000
23 <sup>rd</sup> April, 2017	1 months	3,750
10 <sup>th</sup> May, 2017	2 months	5,000

**Answer**

**Calculation of Average Due Date**  
(Taking 4<sup>th</sup> May, 2017 as the base date)

Date of bill	Term	Due date	Amount ₹	No. of days from the base date i.e. May 4, 2017	Product ₹
<b>2017</b>		<b>2017</b>			
1 <sup>st</sup> March	2 months	4 <sup>th</sup> May	4,000	0	0
10 <sup>th</sup> March	3 months	13 <sup>th</sup> June	3,000	40	1,20,000
5 <sup>th</sup> April	2 months	8 <sup>th</sup> June	2,000	35	70,000
23 <sup>rd</sup> April	1 month	26 <sup>th</sup> May	3,750	22	82,500
10 <sup>th</sup> May	2 months	13 <sup>th</sup> July	<u>5,000</u>	70	<u>3,50,000</u>
			<u>17,750</u>		<u>6,22,500</u>

Average due date = Base date + Days equal to Total of products / Total amount  
 = 4<sup>th</sup> May, 2017 +  $\frac{₹ 6,22,500}{17,750}$  = 4<sup>th</sup> May, 2017 + 35 days = 8<sup>th</sup> June, 2017

**Question No. 2**

**May 2018 (5 MARKS)**

Mr. Alok owes Mr. Chirag ₹ 650 on 1<sup>st</sup> January 2018. From January to March, the following further transactions took place between Alok and Chirag

January 15	Alok buys goods	₹ 1,200
February 10	Alok buys goods	₹ 850
March 7	Alok received Cash loan	₹ 1,500

Alok pays the whole amount on 31<sup>st</sup> March, 2018 together with interest @ 6% per annum. Calculate the interest by average due date method.

**Answer****Calculation of average due date**

Alok pays the whole amount on 31<sup>st</sup> March, 2018 together with interest at 6% per annum.

Due Date	Amoun	No. of days from Jan. 1	Product
2018	₹		
Jan. 1	650	0	0
Jan. 15	1,200	14	16,800
Feb. 10	850	40	34,000
March 7	<u>1,500</u>	65	<u>97,500</u>
	<u>4,200</u>		<u>1,48,300</u>

Average due date=Base date+ Days equal to Total of products /Total amount

$$= \text{Jan. 1} + 1,48,300/4,200$$

$$= \text{Jan. 1} + 35.31^* \text{ Days}$$

$$= \text{Feb. 6}$$

Interest therefore has been calculated on ₹ 4,200 from 6<sup>th</sup> Feb. to 31<sup>st</sup> March, i.e., for 54 days.

$$4,200 \times 6\% \times 54/365 = ₹ 37.28$$



# ACCOUNT CURRENT

- When due date of the transaction falls after end date then Product / Interest on such transaction shall be shown on the opposite side of the transaction and such product / interest is written by using red ink. ∴ it is known as Red Ink Interest / Product.

## DEPRICIATION.

- Depreciation:

Reduction in value of assets over time, due to wear and tear.

It is mainly because of limited life of asset. If asset is having unlimited life then depreciation shall not be provided. (e.g. land)

Depreciation shall be provided :-

- ① To know correct cost of production.
- ② To find out current profit (Financial Performance)
- ③ To know Actual position of Business.
- ④ To make funds available for replacement of assets.

- Depreciation is known as opening non cash expenditure:

Depreciation is provided if ~~the~~ life of asset

AS-10 :- Property, Plant and Equipment.

# Account Current

**Question No. 1**

**RTP May 2019**

The following are the transactions that took place between G and H during the period from 1<sup>st</sup> October, 2017 to 31<sup>st</sup> March, 2018:

2017		₹
Oct.1	Balance due to G by H	3,000
Oct 18	Goods sold by G to H	2,500
Nov. 16	Goods sold by H to G (invoice dated November, 26)	4,000
Dec.7	Goods sold by H to G (invoice dated December, 17)	3,500
2018		₹
Jan. 3	Promissory note given by G to H, at three months	5,000
Feb. 4	Cash paid by G to H	1,000
Mar. 21	Goods sold by G to H	4,300
Mar.28	Goods sold by H to G (invoice dated April, 8)	2,700

Draw up an Account Current up to March 31st, 2018 to be rendered by G to H, charging interest at 10% per annum. Interest is to be calculated to the nearest rupee.

**Answer**

**In the books of G H in Account Current with G  
(interest to 31<sup>st</sup> March,2018@10%p.a.)**

Date	Due date	Particulars	No. of days till 31.3.18	Amt.	Product	Date	Due date	Particulars	No. of days till 31.3.18	Amt.	Product
2017	2017			₹	₹	2017	2017			₹	₹
Oct 1,	Oct 1,	To Bal. b/d	182	3,000	5,46,000	Nov 16	Nov 26	By Purchases	125	4,000	5,00,000
Oct 18,	Oct 18	To Sales	164	2,500	4,10,000	Dec 7	Dec. 17	By Purchases	104	3,500	3,64,000
2018	2018					2018	2018				
Jan 3	Apr 6	To Bills Payable	(6)	5,000	(30,000)	Mar 28	Apr 8	By Purchases	(8)	2,700	(21,600)
Feb 4	Feb 4	To Cash	55	1,000	55,000	Mar 31	Mar 31	By Balance of product			1,81,600
Mar 21	Mar. 21	To Sales	10	4,300	43,000			By Balance c/d		5,650	
Mar 31	Mar 31	To Interest		50	-						
				15,850	10,24,000					15,850	10,24,000

Interest for the period =  $\frac{1,81,600 \times 10 \times 1}{100 \times 365} = ₹ 50$  (approx.)

100 x 365



## Question No. 2

## Mock Test March 2019 (5 MARKS)

On 1<sup>st</sup> January, 2018, X's account in Y's ledger showed a debit balance of Rs. 5,000. The following transactions took place between Y and X during the quarter ended 31<sup>st</sup> March, 2018:

2018			₹
Jan.	11	Y sold goods to X	6,000
Jan.	24	Y received a promissory note from X due after 3 months	5,000
Feb.	01	X sold goods to Y	10,000
Feb.	04	Y sold goods to X	8,200
Feb.	07	X returned goods to Y	1,000
March	01	X sold goods to Y	5,600
March	18	Y sold goods to X	9,200
March	23	X sold goods to Y	4,000

Accounts were settled on 31<sup>st</sup> March, 2018 by means of a cheque. Prepare an Account Current to be submitted by Y to X as on 31<sup>st</sup> March, 2018, taking interest into account @ 10% per annum. Calculate interest to the nearest multiple of a rupee.

## Answer

X in Account Current with Y (Interest to 31<sup>st</sup> March, 2018 @ 10% p.a)

Date	Particulars	Amount	Days	Product	Date	Particulars	Amount	Days	Product
2018		₹		₹	2018		₹		₹
Jan.1	To Balance b/d	5,000	90	4,50,000	Jan.24	By Promissory Note (due date 27 <sup>th</sup> April)	5,000	(27)	(1,35,000)
Jan.11	To Sales	6,000	79	4,74,000	Feb. 1	By Purchases	10,000	58	5,80,000
Feb. 4	To Sales	8,200	55	4,51,000	Feb. 7	By Sales Return	1,000	52	52,000
Mar.18	To Sales	9,200	13	1,19,600	Mar. 1	By Purchases	5,600	30	1,68,000
Mar.31	To Interest	219			Mar.23	By Purchases	4,000	8	32,000
					Mar.31	By Balance of Products			7,97,600
					Mar.31	By Bank	3,019		
		28,619		14,94,600			28,619		14,94,600

## Working Note:

## Calculation of interest:

$$\text{Interest} = 7,97,600 / 365 \times 10 / 100 = ₹ 219 \text{ (approx.)}$$

# ACCOUNT CURRENT

Page No.  
Date 13, 7, 19

- When due date of the transaction falls after end date then Product / Interest on such transaction shall be shown on the opposite side of the transaction and such product / interest is written by using red ink. ∴ it is known as Red Ink Interest / Product.

## DEPRICIATION.

- Depreciation:

Reduction in value of assets over time, due to wear and tear.

It is mainly because of limited life of asset. If asset is having unlimited life then depreciation shall not be provided. (e.g. land)

Depreciation shall be provided :-

- ① To know correct cost of production.
- ② To find out current profit (Financial Performance)
- ③ To know Actual position of Business.
- ④ To make funds available for replacement of assets.

- Depreciation is known as opening non cash expenditure:

Depreciation is provided if ~~the~~ life of asset

AS-10 :- Property, Plant and Equipment.



Page No. \_\_\_\_\_  
Date \_\_\_\_\_

## • Methods of Recording Depreciation :

Depreciation directly charged to asset

Depreciation not charged to Asset but recorded in provision for Depreciation Alc.

↓  
Depreciation Alc — Dr  
To Asset Alc

↓  
Provision  
↓  
Depreciation Alc — Dr  
To Provision for Dep. Alc

↓  
Asset is shown at WDV | BV.

↓  
Asset shown at original value.

① IF there is only one Asset in Asset Alc.

Asset Alc                      Asset is Sold at                      Provision Alc  
7,50,000

To Cash 100000 ①	By Provision For Dep. 20000 ⑥		To Asset Alc ⑤ 200,000	1st yr ② By Dep. Alc 100000
	By Bank ⑦ 7,50,000			2nd yr ③ By Dep. Alc 100000
	By P&L Alc 50000			
<u>10,00,000</u>	(Loss) <u>10,00,000</u>			



2) IF there are more than One Asset :

Asset Alc

Provision Alc.

To Cash 1000000	By Disposal of Asset Alc 1000000	To Disposal of Asset 200000	By Dep. Alc 100000
Asset 2 2000000			By Dep. Alc 100000
Asset 3 1500000			

Disposal of Asset Alc

To Asset 1000000	By Provision 200000
	By Bank 750000
	By P&L Alc (loss) 50000
<u>1000000</u>	<u>1000000</u>



## Methods of Depreciation:

### i) Straight Line Method (SLM):

$$\frac{\text{Cost} - \text{Scrap Value}}{\text{Expected Useful life (in years)}}$$

- Cost = Purchase Price + All expenses incurred on asset before asset is ready to use.
- Assumption: It is assumed that benefit taken from asset/use of asset is same every year.

Method 1

Method 2

$$\frac{\text{Cost} - \text{scrap value}}{\text{Expected Useful life}}$$

$$\text{Cost} \times \%$$

★ IF life of asset and percentage (%) both are given follow percentage (%) method.



### 2) WRITTEN DOWN VALUE METHOD (WDV):

Example :- 10,00,000 For 1st year dep. @ 10%

$$\begin{array}{r}
 10,00,000 \\
 - 1,00,000 \\
 \hline
 9,00,000 \rightarrow \text{WDV} \\
 \quad 90,000 \quad 10\% \\
 \hline
 8,10,000
 \end{array}$$

\* Assumption: In the beginning use & efficiency of asset is higher. Therefore depreciation shall be higher in beginning and it should go down year by year after its use and therefore, amount shall also decrease.

### 3) SUM OF YEARS DIGIT METHOD (SYD):

\* Assumption :- Similar to WDV.

Example :- Cost of asset = 36,000  
Life of asset = 6 yrs.

Calculate depreciation as per SYD method.

Digits of year = 1 2 3 4 5 6 = 21  
6styr 5ndyr 4thyr 3rdyr 2ndyr 1styr

Depreciation:

For 1st year =  $\frac{36,000}{21} \times 6 = 10,286$



Page No. \_\_\_\_\_  
Date \_\_\_\_\_

$$\text{2nd Year: } \frac{36,000}{21} \times 5 = 8571$$

$$\text{3rd Year: } \frac{36,000}{21} \times 4 = 6857$$

$$\text{4th Year: } \frac{36,000}{21} \times 3 = 5143$$

$$\text{5th Year: } \frac{36,000}{21} \times 2 = 3429$$

$$\text{6th Year: } \frac{36,000}{21} \times 1 = 1714$$

36,000

#### 4) MACHINE HOURS METHOD:

- Life of machine is given in total expected hours

$$\frac{\text{Cost - Scrap Value}}{\text{Expected Useful life in Hours}} \times \text{Hours used in current year}$$

#### 5. PRODUCTION UNITS METHOD:

$$\frac{\text{Cost - Scrap Value}}{\text{Expected Useful life in Units}} \times \text{Units Produced in current year}$$

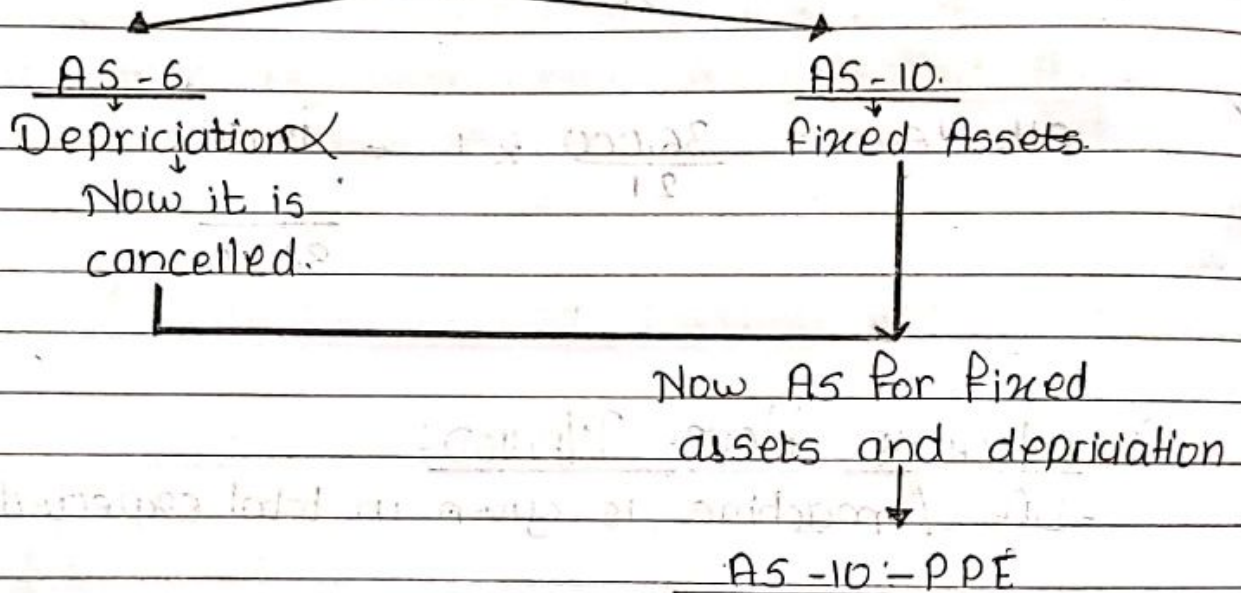
6. DEPLETION METHOD:-

- Wasting Assets Method.
- e.g. Coal Mine, oilfields etc.

$$\frac{\text{Cost}}{\text{Maximum Possible Extraction}} \times \text{Actual Extraction in current year}$$

23/7/19

• AS-10 :- Plant, Property and Equipments



As per AS-10 Depreciation shall be provided in the pattern of benefit/use from asset.

• PPE:

- Tangible Item
- Life more than 12 months
- Expected to give future economic benefit.
- Used in Production/ Administration of Business.



# Concept and Accounting of Depreciation

Question No.1

RTP Nov. 2018 ,RTP Nov. 2019

M/s. Green Channel purchased a second-hand machine on 1<sup>st</sup> January, 2015 for 1,60,000. Overhauling and erection charges amounted to ₹ 40,000. Another machine was purchased for ₹ 80,000 on 1st July, 2015. On 1st July, 2017, the machine installed on 1st January, 2015 was sold for ₹ 1,00,000. Another machine amounted to ₹ 30,000 was purchased and was installed on 30th September, 2017.

Under the existing practice the company provides depreciation @ 10% p.a. on original cost. However, from the year 2018 it decided to adopt WDV method and to charge depreciation 15% p.a. You are required to prepare Machinery account for the years 2015 to 2018.

## Answer

In the books of M/s. Green Channel Co. Machinery Account

		₹			₹
1.1.2015	To Bank A/c	1,60,000	31.12.2015	By Depreciation A/c	24,000
	To Bank A/c (Erection charges)	40,000		(₹ 20,000 + ₹ 4,000)	
			31.12.2015	By Balance c/d	2,56,000
1.7.2015	To Bank A/c	80,000		(₹ 1,80,000 + ₹ 76,000)	
		<u>2,80,000</u>			<u>2,80,000</u>
1.1.2016	To Bal. b/d	2,56,000	31.12.2016	By Depreciation A/c	28,000
				(₹ 20,000 + ₹ 8,000)	
			31.12.2016	By Balance c/d	2,28,000
		<u>2,56,000</u>		(₹ 1,60,000 + ₹ 68,000)	
					<u>2,56,000</u>
1.1.2017	To Bal. b/d	2,28,000	1.7.2017	By Bank A/c	1,00,000
30.9.2017	To Bank A/c	30,000		By Profit and Loss A/c (Loss on Sale - W.N. 1)	50,000
			31.12.2017	By Depreciation A/c	18,750
				(₹ 10,000 + ₹ 8,000 + ₹ 750)	
				By Balance c/d + ₹ 29,250)	89,250
		<u>2,58,000</u>			<u>2,58,000</u>
1.1.2018	To Balance b/d	89,250	31.12.2018	By Depreciation A/c	13,387.5
				(₹ 9,000 + ₹ 4,387.5)	
				By Balance c/d	75,862.5
				(₹ 51,000 + ₹ 24,862.5)	
		<u>89,250</u>			<u>89,250</u>

**Working Notes:****Book Value of machines (Straight line method)**

	<i>Machine</i>	<i>Machine</i>	<i>Machine</i>
	<i>I</i>	<i>II</i>	<i>III</i>
	₹	₹	₹
Cost	2,00,000	80,000	30,000
Depreciation for 2015	<u>20,000</u>	<u>4,000</u>	
Written down value as on 31.12.2015	1,80,000	76,000	
Depreciation for 2016	<u>20,000</u>	<u>8,000</u>	
Written down value as on 31.12.2016	1,60,000	68,000	
Depreciation for 2017	<u>10,000</u>	<u>8,000</u>	<u>750</u>
Written down value as on 31.12.2017	1,50,000	<u>60,000</u>	<u>29,250</u>
Sale proceeds	<u>1,00,000</u>		
Loss on sale	50,000		

**Question No. 2****RTP May 2019**

A lease is purchased on 1st April, 2014 for 4 years at a cost of ₹ 2,00,000. It is proposed to depreciate the lease by the annuity method charging 5 percent interest. A reference to the annuity table shows that to depreciate ₹ 1 by annuity method over 4 years charging 5% interest, one must write off a sum of ₹ 0.282012 [To write off ₹ 2,00,000 one has to write off every year ₹ 5,6402.40 i.e.  $0.282012 \times 2,00,000$ ].

You are required to show the Lease Account for four years (2014-15 to 2017-18) and also the relevant entries posted to the profit and loss account.



## Answer

## Lease Account

Dr.			Cr.		
2014-15 April. 1	To Bank A/c	2,00,000.00	2014-15 Mar. 31	By Depreciation A/c	56,402.40
Mar. 31	To Interest A/c (5% on ₹ 2,00,000)	10,000.00		By Balance c/d	1,53,597.60
		<b>2,10,000.00</b>			<b>2,10,000.00</b>
2015-16 April. 1	To Balance b/d	1,53,597.60	2015-16 Mar.31	By Depreciation A/c	56,402.40
Mar. 31	To Interest A/c (5% on ₹ 1,53,597.60)	7,679.88		By Balance c/d	1,04,875.08
		<b>1,61,277.48</b>			<b>1,61,277.48</b>
2016-17 April 1	To Balance b/d	1,04,875.08	2016-17 Mar 31	By Depreciation A/c	56,402.40
Mar. 31	To Interest A/c	5,243.75	Mar 31	By Balance c/d	53,716.43
		<b>1,10,118.83</b>			<b>1,10,118.83</b>
2017-18 April. 1	To Balance b/d	53,716.43	2017-18 Mar. 31	By Depreciation A/c	56,402.25
Mar. 31	To Interest A/c	2,685.82			
		<b>56,402.25</b>			<b>56,402.25</b>

## Profit and Loss Account

2014-15			2014-15		
		₹			₹
Mar. 31 2015-16	To Depreciation A/c	56,402.40	Mar. 31 2015-16	By Interest A/c	10,000.00
Mar. 31 2016-17	To Depreciation A/c	56,402.40	Mar. 31 2016-17	By Interest A/c	7,679.88
Mar. 31 2017-18	To Depreciation A/c	56,402.40	Mar. 31 2017-18	By Interest A/c	5,243.75
Mar. 31	To Depreciation A/c	56,402.25	Mar. 31	By Interest A/c	2,685.82





## Sale on Approval:

(Actually sale on Approval is not transaction therefore, no need to record it but it is recorded to avoid chance of forgetting it)

### On Regular Basis

### On Casual Basis (Few Transactions in year)

- Separate set of Books maintained.

- No separate set of Books.

Regular Book

Memorandum Book

- Entry Recorded in same book assuming that it is regular sale.

Dr. Cr.

Dr. Cr.

A  
M  
B  
U  
T  
A  
C  
E  
N  
T

① When Goods Sent

Customer Alc - Dr  
To Sale/Return Alc

• Customer Alc — Dr xxx  
To Sales Alc. xxx

② When goods are returned

Sale/Return - Dr  
To Customer Alc

• Goods are returned :-  
Sales Alc - Dr xxx  
To Customer Alc xxx

③ When goods are sold

a) 1st reverse the entry & approval →  
Sale/Return Alc - Dr  
To Customer Alc

• Goods Approved / sold :-  
No Entry.

b) Entry for sale  
Customer Alc - Dr  
To Sale Alc.

- Goods are still with customer on 31st March & no approval is received.

b) Show it as closing stock.  
Goods with customer  
- Alc — Dr  
To Trading Alc.

a) Reverse the entry for sale.  
Sale Alc - Dr  
To customer Alc.



Cost Price	Sale Price.
100% (1)	50% $\frac{1}{2}$
50% ( $\frac{1}{2}$ )	33.33 ( $\frac{1}{3}$ )
33.33% ( $\frac{1}{3}$ )	25% ( $\frac{1}{4}$ )
25% ( $\frac{1}{4}$ )	20% ( $\frac{1}{5}$ )
20% ( $\frac{1}{5}$ )	16.67 ( $\frac{1}{6}$ )
( $\frac{1}{10}$ )	( $\frac{1}{11}$ )

- 2,52,000 S.P. and profit is 26% on cost.  
 (Missing figure assumed as 100)

C.P.	S.P.
2,52,000	126
? 2,52,000	100

$$\therefore \frac{2,52,000 \times 100}{126} = \underline{2,00,000}$$

- 25% profit on sale & Cost Price is 85,000.

S.P.	C.P.	$\frac{17,000}{85,000 \times 100}$	
100	125	$\frac{125}{100}$	= 68,000.
?	85,000		



# Sales of goods on approval or return basis

Question No. 1

RTP May 2018, RTP Nov. 2019

X supplied goods on sale or return basis to customers, the particulars of which are as under:

Date of dispatch	Party's name	Amount ₹	Remarks
10.12.2017	M/s ABC Co.	10,000	No information till 31.12.2017
12.12.2017	M/s DEF Co	15,000	Returned on 16.12.2017
15.12.2017	M/s GHI Co	12,000	Goods worth ₹ 2,000 returned on 20.12.2017
20.12.2017	M/s DEF Co	16,000	Goods Retained on 24.12.2017
25.12.2017	M/s ABC Co	11,000	Good Retained on 28.12.2017
30.12.2017	M/s GHI Co	13,000	No information till 31.12.2017

Goods are to be returned within 15 days from the dispatch, failing which it will be treated as sales. The books of 'X' are closed on the 31<sup>st</sup> December, 2017.

Prepare the following account in the books of 'X'.

Goods on "sales or return, sold and returned day books". Goods on sales or return total account.

## Answer

### In the books of 'X'

#### Goods on sales or return, sold and returned day book

Date 2017	Party to whom goods sent	L.F	Amount ₹	Date 2017	Sold ₹	Returned ₹
Dec.10	M/s ABC		10,000	Dec. 25	10,000	-
Dec.12	M/s DEF		15,000	Dec. 16	-	15,000
Dec.15	M/s GHI		12,000	Dec. 20	10,000	2,000
Dec.20	M/s DEF		16,000	Dec. 24	16,000	-
Dec.25	M/s ABC		11,000	Dec. 28	11,000	-
Dec.30	M/s GHI		<u>13,000</u>	-		
			77,000		47,000	17,000

#### Goods on Sales or Return Total Account

2017		Amount ₹	2017		Amount ₹
Dec. 31	To Returns	17,000	Dec. 31	By Goods sent on sales or return	77,000
	To Sales	47,000			
	To Balance c/d	<u>13,000</u>			
		77,000			<u>77,000</u>

## Question No. 2

RTP May 2019

On 31<sup>st</sup> December, 2018 goods sold at a sale price of ₹ 3,000 were lying with customer, Ritu to whom these goods were sold on 'sale or return basis' were recorded as actual sales. Since no consent has been received from Ritu, you are required to pass adjustment entries presuming goods were sent on approval at a profit of cost plus 20%. Present market price is 10% less than the cost price.

Answer

## Journal Entries

Date 2018	Particulars	Dr. ₹	Cr. ₹
31 <sup>st</sup> Dec.	Sales A/c .....Dr. To Ritu's A/c (Being cancellation of entry for sale of goods, not yet approved)	3,000	3,000
	Inventories with customers A/c (Refer W.N.)..... Dr. To Trading A/c (Being Inventories with customers recorded at market price)	2,250	2,250

## Working Note:

Calculation of cost and market price of Inventories with customer

Sale price of goods sent on approval	₹ 3,000
Less: Profit (3,000 x 20/120)	₹ 500
Cost of goods	₹ 2,500

Market price = 2,500 - (2,500 x 10%) = ₹ 2,250

## Question No. 3

May 2018 (5 MARKS)

Mr. Badhri sends goods to his customers on Sale or Return. The following transactions took place during the month of December 2017.

December 2<sup>nd</sup> - Sent goods to customers on sale or return basis at cost plus 25% - ₹ 80,000

December 10<sup>th</sup> - Goods returned by customers ₹ 35,000

December 17<sup>th</sup> - Received letters from customers for approval ₹ 35,000

December 23<sup>rd</sup> - Goods with customers awaiting approval ₹ 15,000

Mr. Badhri records sale or return transactions as ordinary sales. You are required to pass the necessary Journal Entries in the books of Mr. Badhri assuming that the accounting year closes on 31<sup>st</sup> Dec. 2017.



## Answer

### In the books of Mr. Badhri Journal Entries

Date	Particulars		L.F.	Dr. (in ₹)	Cr. (in ₹)
2017 Dec. 2	Trade receivables A/c..... Dr. To Sales A/c (Being the goods sent to customers on sale or return basis)			80,000	80,000
Dec. 10	Return Inward A/c (Note 1) ..... Dr To Trade receivables A/c. (Being the goods returned by customers to whom goods were sent on sale or return basis)	Dr.		35,000	35,000
Dec. 23	Sales A/c..... Dr. To Trade receivables A/c (Being the cancellation of original entry of sale in respect of goods on sale or return basis)	Dr.		15,000	15,000
Dec. 31	Inventories with customers on Sale or Return A/c..... Dr. To Trading A/c (Note 3) (Being the adjustment for cost of goods lying with customers awaiting approval)	Dr.		12,000	12,000

Note:

- (1) Alternatively, Sales account or Sales returns can be debited in place of Return Inwards account.
- (2) No entry is required for receiving letter of approval from customer.
- (3) Cost of goods with customers = ₹ 15,000 x 100/125 = ₹ 12,000
- (4) It has been considered that the transaction values are at invoice price (including profit margin).

#### Question No. 4

Nov. 2018 ( 5 MARKS)

Mr. Ganesh sends out goods on approval to few customers and includes the same in the Sales Account. On 31.03.2018, the Trade Receivables balance stood at ₹ 75,000 which included ₹ 6,500 goods sent on approval against which no intimation was received during the year. These goods were sent out at 30% over and above cost price and were sent to- Mr. Adhitya ₹ 3,900 and Mr. Bakkiram ₹ 2,600.

Mr. Adhitya sent intimation of acceptance on 25<sup>th</sup> April, 2018 and Mr. Bakkiram returned the goods on 15<sup>th</sup> April, 2018. Make the adjustment entries and show how these items will appear in the Balance Sheet as on 31<sup>st</sup> March, 2018. Show also the entries to be made during April, 2018.

Value of Closing Inventories as on 31<sup>st</sup> March, 2018 was ₹ 50,000. Mr. Adhitya sent intimation of acceptance on 25<sup>th</sup> April, 2018 and Mr. Bakkiram returned the goods on 15<sup>th</sup> April, 2018.

Make the adjustment entries and show how these items will appear in the Balance Sheet as on 31<sup>st</sup> March, 2018. Show also the entries to be made during April, 2018. Value of Closing Inventories as on 31<sup>st</sup> March, 2018 was ₹ 50,000.

**Answer**

In the Books of Mr. Ganesh Journal Entries

<i>Date</i>	<i>Particulars</i>	<i>L.F.</i>	<i>Dr.</i> ₹	<i>Cr.</i> ₹
2018 March 31	Sales A/c..... Dr. To Trade receivables A/c (Being the cancellation of original entry for sale in respect of goods lying with customers awaiting approval)		6,500	6,500
March 31	Inventories with Customers on Sale or Return A/c..... Dr To Trading A/c (Note 1) (Being the adjustment for cost of goods lying with customers awaiting approval)		5,000	5,000
April 25	Trade receivables A/c..... Dr To Sales A/c (Being goods costing worth ₹ 3,900 sent to Mr. Aditya on sale or return basis has been accepted by him)		3,900	3,900

Balance Sheet of Mr. Ganesh as on 31st March, 2018 (Extracts)

<i>Liabilities</i>	₹	<i>Assets</i>	₹	₹
		Trade receivables (₹ 75,000 - ₹ 6,500)		68,500
		Inventories-in-trade	50,000	
		Add: Inventories with customers on Sale or Return	5,000	<u>55,000</u>
				<u>1,23,500</u>

Notes:

(1) Cost of goods lying with customers =  $100/130 \times ₹ 6,500 = ₹ 5,000$ (2) No entry is required on 15<sup>th</sup> April, 2018 for goods returned by Mr. Bakkiram. Goods should be included physically in the Inventories.



# COMPANY ACCOUNTS

Page No. \_\_\_\_\_  
Date: 25/9/19

• Face Value : Printed Price on certificate.

Authorised Capital:

Maximum capital permitted by ROC.

Issued Capital : Invited for subscription

Subscribed Capital : No. of shares for which application money received.

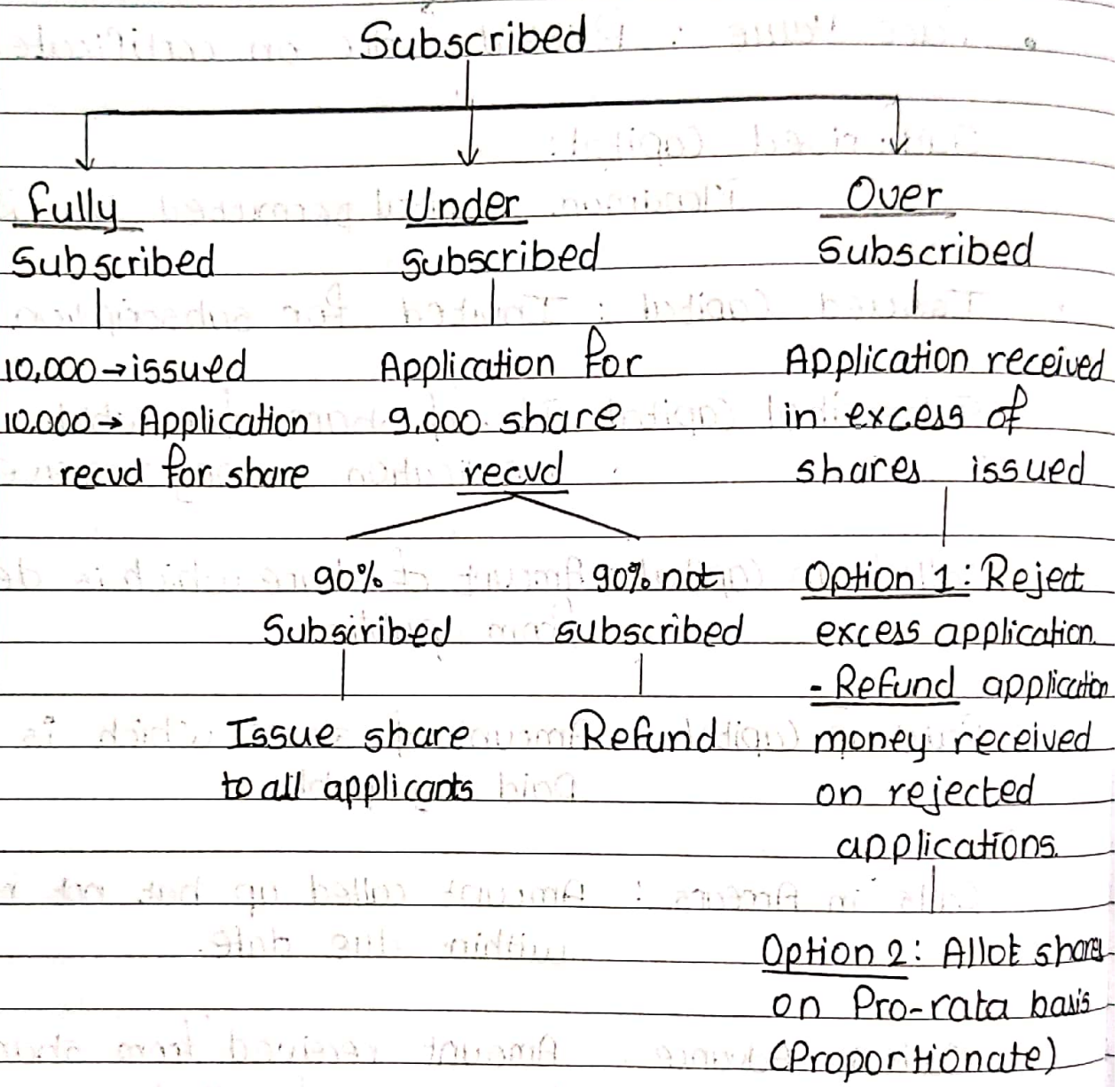
Called up Capital : Amount of share which is demanded from public.

Paid up Capital : Amount of share which is actually paid by public.

Calls in Arrears : Amount called up but not received within due date.

Calls in Advance : Amount received from shareholder in excess of called up amount.

• Paid up Capital = Called up - Calls in Arrears.



• Underwriters:  
A bank or other financial institution who takes guarantee to buy all the unsold shares in an issue of new shares. (to undertake responsibility)



## Issue Price

Issued at Par/  
Face value/  
Nominal Value

F.V. = 10  
I.P. = 10

Issued at  
Premium

F.V. = 10  
I.P. = 12

No limit on  
Premium

10₹ = Equity  
Capital Ac  
2₹ = Securities  
Premium Ac

As per law this  
premium shall be  
kept separately  
& shall be credi-  
ted to Secu. Prem. Ac

This premium can be  
used only for:

- 1) To write off preliminary exp.
- 2) To write off Discount on issue of shares/ deb.
- 3) To issue bonus shares
- 4) To pay premium on redemption of shares/ Debentures.

5) Buy Back of equity shares.

Additionally consider premium for calculation of cash and Bank Balance.

(Don't touch in any other situation)

26/9/19. Example:

Company issued 1000 shares of 100 each of 20 premium. Applications received for 9,500 shares out of which 100 applications rejected as it was incomplete.

Amount to be collected:

On application	= 50	(Including 20 premium)
On allotment	= 20	
On 1st call	= 30	
On final call	= 20	

<u>Application money received.</u>	<u>Bank A/c — Dr</u>	4,75,000
	To Share Application. <small>(9500 × 50)</small>	4,75,000.

<u>Due transfer to Capital.</u>	<u>Share Capital A/c — Dr</u>	4,75,000 →
	To Bank <small>(100 × 50)</small>	50,000
	To Share Capital A/c <small>(9400 × 50)</small>	4,70,000
	To Securities Premium A/c <small>(9400 × 20)</small>	1,88,000



Allotment Due	Share Allotment Alc — Dr	1,88,000	-
	(9400 x 20) To Share Capital Alc	-	1,88,000
Receipt	Bank Alc — Dr	1,88,000	-
	To Share Allotment Alc	-	1,88,000
First call. Due	Share 1st call Alc — Dr	2,82,000	-
	To Share Capital Alc	-	2,82,000
Receipt	Bank Alc — Dr	2,82,000	-
	To Share 1st Call Alc	-	2,82,000
Final call Due.	Share Final call Alc — Dr	1,88,000	-
	To Share Capital Alc	-	1,88,000
Receipt	Bank Alc — Dr	1,88,000	-
	To Share Final call Alc	-	1,88,000
Due / transfer of capital.	Share Application Alc — Dr	4,75,000	-
	To Bank (100 x 50)	-	5000
	To Share Capital Alc (9400 x 30)	-	2,82,000
	To Securities Premium Alc (9400 x 20)	-	1,88,000

• FORFEITURE OF SHARES (Including Surrender)

Bank A/c — Dr 30  
 To Share Application A/c 30

Share Application A/c — Dr 30  
 To Share Capital A/c 30

Share Allotment A/c — Dr 20  
 To Share Capital A/c 20

Bank A/c — Dr 20  
 To Share Allotment A/c 20

Share 1<sup>st</sup> call A/c — Dr 30  
 To Share Capital A/c 30

NOT RECEIVED:

forfeiture Entry:

Share Capital A/c — Dr 80 (Called up value)  
 To Share forfeiture A/c 80 (Paid up value)  
 To Share 1<sup>st</sup> call A/c 50  
 Calls in arrears A/c 30 (Due but not received)

One share issued at 100 (30, 20, 30, 20)  
 1<sup>st</sup> call demanded but not received, therefore share forfeited.



## Forfeiture of Shares In case of shares issued at premium

IF Premium is called & Received



Don't touch premium A/c



Share Capital A/c - Dr  
To share forfeiture A/c  
To share 1st call A/c

Calls in arrears A/c

IF premium is not received even it was called.



Share Capital A/c - Dr  
(called up)

Securities Premium - Dr  
(Premium Amt. on shares forfeited)

To share forfeiture A/c  
(Paid up)

To 1st call / Allotment /  
calls in arrears A/c  
(called but not recvd)

27/10/19

## • Re-issue of Shares

(All calculations should be excluding premium received previously)



Share forfeiture A/c - Dr  
To 1st call / Allotment / calls in arrears A/c  
(called but not recvd)



Share forfeiture A/c

Capital Reserve

↓  
Created out of Capital Profit:  
→ forfeiture of share  
→ Profit on revaluation of assets.

Reserve Capital

↓  
Uncalled capital if reserved for purpose of liquidation then it is reserve capital.

• Re-issue of Shares:

- Minimum price of re-issue shall be amount unpaid by previous shareholder (Excluding Premium)

Entry for Re-issue:

Bank A/c ——— Dr (received from new shareholder)  
Share forfeiture A/c — Dr (F.V. - Amt. received)  
To Share capital A/c (F.V.)  
To Securities Premium A/c (if any)

Transfer to Capital Reserve:

Share forfeiture A/c — Dr  
To Capital Reserve (Profit on reissue)

↓

$$\text{No. of shares re-issued} \times \left( \begin{array}{l} \text{Amt. recvd from previous} \\ \text{shareholder} \end{array} + \begin{array}{l} \text{Amt recvd from new} \\ \text{shareholder} \end{array} - \text{F.V.} \right)$$

↑  
Profit Per Share



Interest on Calls in Arrears

Interest at 10% p.a.  
(From last due date to present date)

Interest Due → Share holder Alc — Dr  
To Interest on calls in arrears Alc.

Interest on Calls in Advance.

Interest at 12% p.a.  
(From date of receipt to adjustment against respective call)

Interest on calls in arrears Alc — Dr  
To Shareholder Alc.

Interest rcvd. → Bank Alc — Dr → Shareholder Alc — Dr  
To Shareholder Alc To Bank Alc

- If nothing is specified then dividend will be pay on Paid-Up capital.

- Issue of shares for consideration other than cash:

Asset Alc — Dr  
To Vendor Alc

Vendor Alc — Dr  
To Equity share Alc  
To Securities premium Alc (If any)

## • Types of Preference Shares

### 1) Cumulative:

If dividend not paid due to insufficient profit then this dividend get <sup>accumulated</sup> ~~ammounted~~ and will be paid in the year of profit.

### 2) Non-Cumulative:

Dividend will not get accumulated if not paid. In other words, dividend will be paid only if in the year when there is profit.

### 3) Participating:

If there is surplus even after dividend payment of equity or capital repayment of equity (on liquidation) then participating preference share have right to participate in surplus.

### 4) Non-Participating:

No participation in surplus.

• If nothing is specified preference shares are cumulative & non-participating

### 5) Convertible:

Preference shares will be converted into equity shares.

### 6) Non-Convertible:

Preference shares remains the preference shares.



7) Redeemable:

Which will be redeemable (redeemed) after particular period.

8) Irredeemable:

(Max. of life of preference shares is 20 yrs)  
Concept of irredeemable preference shares is not in existence.

OVER SUBSCRIPTION

Pro-rata allotment

Shares Forfeited

Shareholder Paid  
only application money

Calculate the extra amt. paid on application by applying ratio of application & allotment

Shareholder paid  
Application & allotment

No need to calculate extra amt. as extra amt. is already adjusted against allotment

$$\text{Alloted Shares} \times \left( \text{Appl. money} + \text{Allot. money per share} \right)$$

BALANCE SHEET:

Balance Sheet  
(as on -----)

Particulars	Note No.	Amount ₹
<u>(A) Equity &amp; Liabilities</u>		
<u>I) Shareholders Funds</u>		
a) Share Capital	1	
b) Reserves & Surplus	2	
<u>II) Non Current liabilities</u>		
a) long term borrowings	3	
b) long term provisions		
<u>III) Current liabilities</u>		
a) Trade Payables		
b) Short term borrowings		
c) Short term provisions		
<b>Total</b>		
<u>(B) Assets</u>		
<u>I) Non Current Assets</u>		
a) Fixed Assets		
(i) Tangible Assets		
(ii) Intangible Assets		
b) long term investments		
<u>II) Current Assets</u>		
a) Investments		
b) Trade Receivables		
c) cash & cash Equivalent		
<b>Total</b>		





Situation III :

Debentures issued at premium & redeemable at par.

Issue Price = 120

Redemption Price = 100

Situation III

Debentures issued at par & redeemable at premium

Issue Price = 100

Redemption Price = 120

Situation V.

Debenture issued at discount & redemption at premium.

Bank A/c ——— Dr

Loss A/c ——— Dr

To % Deb. A/c

To Premium on red. A/c.

Situation VI

Debentures issued at Premium & Redemption at Premium.

Example : Debentures issued at 110 each and Redeemable at 120 each. (F.V. : 100)

Bank A/c ——— Dr 110

Loss on Deb. ——— Dr 20

To Deb. A/c 100

To Premium on Red. A/c 20

To Securities Premium A/c 10



Q.6 How to transfer / Dr. Discount or loss on Issue of Debenture to P&L A/c

IF repayment of deb. will be made directly at the end of life & deb.

IF repayment of debenture is made every year in equal installments.

IF loss on issue of deb. & life of Deb. is = 150000 = 5 yr

Same Example and value of deb is 150000 & every yr repayment is 300000

Discount deducted every yr:  $\frac{150,000}{5} = 30,000$

Then use sum of years digit method.

yr:	1	2	3	4	5
	5	4	3	2	1 = 15

- 1st yr =  $\frac{150,000}{15} \times 5 = 50,000$
- 2nd =  $\frac{150,000}{15} \times 4 = 40,000$
- 3rd =  $\frac{150,000}{15} \times 3 = 30,000$
- 4th =  $\frac{150,000}{15} \times 2 = 20,000$
- 5th =  $\frac{150,000}{15} \times 1 = 10,000$

## Issue of Debentures as Collateral Security (secondary)



- Debentures kept with bank by company as additional security.
- Debentures are not sold to bank therefore no interest is payable on debentures  
(Interest will be paid only on Bank loan)

No Entry for debenture issued as collateral security (Because there is no transaction)

Fact can be disclosed as note

IF entry is passed:-

↓

Deb. Suspense Alc — Dr  
To % Deb. Alc

↓

In case of repayment of loan:-

% Deb. Alc — Dr  
To Deb. Suspense Alc



# Issue, forfeiture of Shares & Issue of Debentures

## Multiple Choice Questions

### Issue of Shares

1. E Ltd. has allotted 10,000 shares to the application of 14,000 shares on pro-rata basis. The amount payable on application is Rs. 2. F applied for 420 shares the number of shares allotted and the amount carried forward for adjustment against allotment due from F:

- A. 60 shares; Rs. 120    B. 340 shares; Rs. 160  
C. 320 shares; Rs. 200    D. 300 shares; Rs. 240

2. 10,000 equity shares of Rs. 10 each were issued to public at a premium of Rs. 2 per share. Application were received for 12,000 shares. Amount of securities premium account will be:

- A. Rs. 20,000    B. Rs. 24,000    C. Rs. 4,000    D. Rs. 1,600

3. Called up share capital (46,000 shares 10 each) Rs. 4,60,000

Calls in arrear Rs. 7,500

Proposed dividend 5%

Amount of proposed dividend will be

- A. Rs. 22625    B. Rs. 25000    C. Rs. 23000    D. None of the three.

### Forfeiture of Shares

4. 500 shares of Rs. 20 each issued at 5% discount are forfeited for non-payment of allotment and final call money @ Rs. 9 and Rs. 5 respectively. Amount credited to share forfeiture A/c is:

- A. Rs. 2,000    B. Rs. 2,500    C. Rs. 3,000    D. Rs. 7,000

5. A company issued 5,000 shares of Rs. 10 each at 20 % premium payable as follows: Application – Rs. 2, Allotment – Rs. 5 (including premium) and First and Final call. His shares were forfeited. Calculate the amount credited to the Share Forfeited Account.

- A. Rs. 1,000    B. Rs. 1,400    C. Rs. 400    D. None of these

6. The directors of company forfeited 1000 shares of Rs. 10 each, Rs. 7.5 paid up, for non-payment of call money of Rs. 2.5 per share. 700 of this shares are reissued @ Rs. 7 per share. The amount transfer to Capital Reserve A/c would be:

- A. Rs. 2,500    B. Rs. 3,150    C. Rs. 3,500    D. Rs. 5,400

7. A company forfeited 100 equity shares of Rs. 100 each issued at premium of 50% (to be paid at the time of allotment) on which the first call money of Rs. 30 per share was not received, final call of Rs. 20 is yet to be made. These shares were subsequently reissued at Rs. 70 per share at Rs. 80 paid up. The amount credited to Capital Reserve is:

- A. 4,000    B. 2,000    C. 3,000    D. None

8. A Ltd., acquired assets worth Rs. 11,25,000 from B. Ltd., by issue of equity shares of Rs. 100 at premium of 25%. The shares to be issued by A Ltd., for the purchase of consideration:

- A. 9000 shares      B. 11250 shares      C. 14063 shares      D. 7500 shares

9. F Ltd. purchased Machinery from G Company for a book value of Rs.4,00,000. The consideration was paid by issue of 10% debentures of Rs.100 each at a discount of 20%. The debenture account was credited with

- A. Rs.4,00,000    B. Rs.5,00,000    C. Rs.3,20,000    D. Rs.4,80,000

10. Huge Ltd. issued 25,000 equity shares of Rs.100 each at a premium of Rs.15 each payable as Rs.25 on application, Rs.40 on allotment and balance in the first call. The applications were received for 75,000 equity shares but the company issued to them only 25,000 shares. Excess money was refunded to them after adjustment for further calls. Last call on 500 shares were not received and were forfeited after due notice. The above is the case of

- A. Over subscription.    B. Pro-rata allotment.    C. Forfeiture of shares.    D. All of the above

11. O Ltd. issued 10,000 equity shares of Rs.10 each at a premium of 20% payable Rs.4 on application (including premium), Rs.5 on allotment and the balance on first and final call. The company received applications for 15,000 shares and allotment was made pro-rata. P, to whom 3,000 shares were allotted, failed to pay the amount due on allotment. All his shares were forfeited after the call was made. The forfeited shares were reissued to Q at par. Assuming that no other bank transactions took place, the bank balance of the company after effecting the above transactions = ?

- A. Rs.1,14,000    B. Rs.1,32,000    C. Rs.1,20,000    D. Rs.1,00,000

## Practical Questions

# Issue of shares

Question No. 1

RTP May 2018

Pihu Limited issued at par 2,00,000 Equity shares of ₹ 10 each payable ₹ 2.50 on application; ₹ 3 on allotment; ₹ 2 on first call and balance on the final call. All the shares were fully subscribed. Mr. Pal who held 20,000 shares paid full remaining amount on first call itself. The final call which was made after 3 months from first call was fully paid except a shareholder having 2,000 shares who paid his due amount after 2 months along with interest on calls in arrears. Company also paid interest on calls in advance to Mr. Pal. You are required to prepare journal entries to record these transactions.

## Answer

### Book of Pihu Limited Journal

Date	Particulars	L.F.	Debit Amount (₹)	Credit Amount (₹)
	Bank A/c.....Dr. To Equity Share Application A/c (Money received on applications for 2,00,000 shares @₹ 2.50 per share)		5,00,000	5,00,000



Equity Share Application A/c .....Dr. To Equity Share Capital A/c (Transfer of application money on 2,00,000 shares to share capital)		5,00,000	5,00,000
Equity Share Allotment A/c.....Dr. To Equity Share Capital A/c (Amount due on the allotment of 2,00,000 shares @ ₹ 3 per share)		6,00,000	6,00,000
Bank A/c.....Dr. To Equity Share Allotment A/c (Allotment money received)		6,00,000	6,00,000
Equity Share First Call A/c.....Dr. To Equity Share Capital A/c (Being first call made due on 2,00,000 shares at ₹.2 per share)		4,00,000	4,00,000
Bank A/c.....Dr. To Equity Share First Call A/c To Calls in Advance A/c (Being first call money received along with calls in advance on 20,000 shares at ₹2.50 per share)		4,50,000	4,00,000 50,000
Equity Share Final Call A/c.....Dr. To Equity Share capital A/c (Being final call made due on 2,00,000 shares at ₹2.50 each)		5,00,000	5,00,000
Bank A/c.....Dr. Calls in Advance /C Dr. Calls in Arrears A/c Dr. (Being final call received for 1,78,000 shares and calls in advance for 20,000 shares adjusted)		4,45,000 50,000 5,000	5,00,000
Interest on Calls in Advance A/c.....Dr. To shareholders A/c Being interest made due on calls in advance of ₹50,000 at the rate of 12% p.a.)		1,500	1,500
Shareholders A/c.....Dr. To bank A/c (Being payment of Interest made to shareholders)		1,500	1,500
Shareholders A/c.....Dr. To Interest on Calls in Arrears A/c (Being interest on calls in arrears made due at the rate of 10%)		83.34	83.34
Bank A/c.....Dr. To Calls in Arrears A/c To Shareholders A/c (Being money received from shareholder for calls in arrears and interest thereupon)		5,083.34	5,000 83.34

## Question No. 2

May 2018 (10 MARKS)

Piyush Limited is a company with an authorized share capital of ₹ 2,00,00,000 in equity shares of ₹ 10 each, of which 15,00,000 shares had been issued and fully paid on 30<sup>th</sup> June, 2017. The company proposed to make a further issue of 1,30,000 shares of ₹ 10 each at a price of ₹ 12 each, the arrangements for payment being:

- (i) ₹ 2 per share payable on application, to be received by 1<sup>st</sup> July, 2017;
- (ii) Allotment to be made on 10<sup>th</sup> July, 2017 and a further ₹ 5 per share (including the premium) to be payable;
- (iii) The final call for the balance to be made, and the money received by 30<sup>th</sup> April, 2018.

Applications were received for 4,20,000 shares and were dealt with as follows:

- 1) Applicants for 20,000 shares received allotment in full;
- 2) Applicants for 1,00,000 shares received an allotment of one share for every two applied for; no money was returned to these applicants, the surplus on application being used to reduce the amount due on allotment;
- 3) Applicants for 3,00,000 shares received an allotment of one share for every five shares applied for; the money due on allotment was retained by the company, the excess being returned to the applicants; and
- 4) The money due on final call was received on the due date.

You are required to record these transactions (including cash items) in the journal of Piyush limited.

## Answer

## Journal of Piyush Limited

Date		Dr.	Cr.
2017	Particulars	₹	₹
July 1	Bank A/c (Note 1 - Column 3) .....Dr. To Equity Share Application A/c (Being application money received on 4,20,000 shares @ ₹ 2 per share)	8,40,000	8,40,000
July 10	Equity Share Application A/c.....Dr. To Equity Share Capital A/c To Equity Share Allotment A/c (Note 1 - Column 5) To Bank A/c (Note 1-Column 6) (Being application money on 1,30,000 shares transferred to Equity Share Capital Account; on 2,00,000 shares adjusted with allotment and on 90,000 shares refunded as per Board's Resolution No.....dated...)	8,40,000	2,60,000 4,00,000 1,80,000
	Equity Share Allotment A/c.....Dr. To Equity Share Capital A/c To Securities Premium a/c (Being allotment money due on 1,30,000 shares @ ₹ 5 each including premium at ₹ 2 each as per Board's Resolution No.....dated....)	6,50,000	3,90,000 2,60,000



	Bank A/c (Note 1 - Column 8) .....Dr. To Equity Share Allotment A/c (Being balance allotment money received)	2,50,000	2,50,000
	Equity Share Final Call A/c.....Dr. To Equity Share Capital A/c (Being final call money due on 1,30,000 shares @ ₹ 5 per share as per Board's Resolution No.....dated....)	6,50,000	6,50,000
April 30	Bank A/c.....Dr. To Equity Share Final Call A/c (Being final call money on 1,30,000 shares @ ₹ 5 each received)	6,50,000	6,50,000

**Working Note:****Calculation for Adjustment and Refund**

Category	No. of Shares Applied for	No. of Shares Allotted	Amount Received on Application (1x ₹ 2)	Amount Required on Application (2 x ₹ 2)	Amount adjusted on Allotment	Refund [3-4-5]	Amount due on Allotment	Amount received on Allotment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(i)	20,000	20,000	40,000	40,000	Nil	Nil	1,00,000	1,00,000
(ii)	1,00,000	50,000	2,00,000	1,00,000	1,00,000	Nil	2,50,000	1,50,000
(iii)	3,00,000	60,000	6,00,000	1,20,000	3,00,000	1,80,000	3,00,000	Nil
<b>TOTAL</b>	<b>4,20,000</b>	<b>1,30,000</b>	<b>8,40,000</b>	<b>2,60,000</b>	<b>4,00,000</b>	<b>1,80,000</b>	<b>6,50,000</b>	<b>2,50,000</b>

## Forfeiture of Shares

Question No. 3

RTP May 2018, 2019, RTP Nov. 2019

Mr. Hello who was the holder of 4,000 preference shares of ₹ 100 each, on which ₹ 75 per share has been called up could not pay his dues on Allotment and First call each at ₹ 25 per share. The Directors forfeited the above shares and reissued 3,000 of such shares to Mr. X at ₹ 65 per share paid-up as ₹75 per share.

You are required to prepare journal entries to record the above forfeiture and re-issue in the books of the company.

### Answer

#### In the books of Company Journal

Particulars	Dr. ₹	Cr. ₹
Preference Share Capital A/c (4,000 x ₹75) To Preference Share Allotment A/c To Preference Share First Call A/c To Forfeited Share A/c (Being the forfeiture of 4,000 preference shares ₹ 75 each being called up for non-payment of allotment and first call money as per Board's Resolution No ..... dated.....)	3,00,000	1,00,000 1,00,000 1,00,000
Bank A/c (3,000 x ₹65) Forfeited Shares A/c (3,000 x ₹10) To Preference Share Capital A/c (Being re-issue of 3,000 shares at ₹ 65 per share paid-up as ₹ 75 as per Board's Resolution No.....dated....)	1,95,000 30,000	2,25,000
Forfeited Shares A/c To Capital Reserve A/c (Note 1) (Being profit on re-issue transferred to Capital/Reserve)	45,000	45,000

Working Note:

Calculation of amount to be transferred to Capital Reserve

Forfeited amount per share = ₹ 1,00,000/4,000 = ₹ 25

Loss on re-issue = ₹ 75 - ₹ 65 = ₹ 10

Surplus per share re-issued ₹ 15

Transferred to capital Reserve ₹ 15 x 3,000 = ₹ 45,000.



## Issue of Debentures

Question No. 4

RTP May 2018, Mock Test March 2019

Riya Limited issued 20,000 14% Debentures of the nominal value of ₹1,00,00,000 as follows:

- (a) To sundry persons for cash at 90% of nominal value of ₹ 50,00,000.  
 (b) To a vendor for purchase of fixed assets worth ₹ 20,00,000 - ₹ 25,00,000 nominal value.  
 (c) To the banker as collateral security for a loan of ₹ 20,00,000 - ₹ 25,00,000 nominal value.  
 You are required to prepare necessary journal entries Journal Entries.

**Answer**

### In the books of Riya Company Ltd. Journal Entries

Date	Particulars	Dr. ₹	Cr. ₹
(a)	Bank A/c.....Dr. To Debentures Application A/c (Being the application money received on 10,000 debentures @ ₹ 450 each)	45,00,000	45,00,000
	Debentures Application A/c.....Dr. Discount on issue of Debentures A/c.....Dr. To 14% Debentures A/c (Being the issue of 10,000 14% Debentures @ 90% as per Board's Resolution No....dated....)	45,00,000 5,00,000	50,00,000
(b)	Fixed Assets A/c.....Dr. To Vendor A/c (Being the purchase of fixed assets from vendor)	20,00,000	20,00,000
	Vendor A/c.....Dr. Discount on Issue of Debentures A/c.....Dr. To 14% Debentures A/c (Being the issue of debentures of ₹ 25,00,000 to vendor to satisfy his claim)	20,00,000 5,00,000	25,00,000
(c)	Bank A/c.....Dr. To Bank Loan A/c (See Note) (Being a loan of ₹ 20,00,000 taken from bank by issuing debentures of ₹25,00,000 as collateral security)	20,00,000	20,00,000

**Note:** No entry is made in the books of account of the company at the time of making issue of such debentures. In the "Notes to Accounts" of Balance Sheet, the fact that the debentures being issued as collateral security and outstanding are shown by a note under the liability secured.

## RATIO

<b>Meaning of Ratio</b>	Division of two quantities a and b of same units. Denoted by a:b
<b>Inverse Ratio</b>	b:a is inverse ratio of a:b
<b>Compound Ratio</b>	Compound ratio of a:b and c:d is ac:bd
<b>Duplicate Ratio</b>	Duplicate ratio of a:b is $a^2:b^2$
<b>Sub-duplicate Ratio</b>	Duplicate ratio of a:b is $\sqrt[2]{a}:\sqrt[2]{b}$
<b>Triplicate Ratio</b>	Triplicate ratio of a:b is $a^3:b^3$
<b>Sub-triplicate Ratio</b>	Triplicate ratio of a:b is $\sqrt[3]{a}:\sqrt[3]{b}$
<b>Commensurate</b>	If ratio can be expressed in the form of integers
<b>Incommensurate</b>	If ratio cannot be expressed in the form of integers
<b>Continued Ratio</b>	Ratio of three or more quantities e.g. a:b:c

## PROPORTION

<b>Proportion</b>	a,b,c,d are in proportion if $a:b = c:d$ [it is an equality of two ratios]
<b>Term/ Proportional</b>	first = a, second = b, third = c, fourth = d
<b>Mean Proportional</b>	In a continued proportion $a:b=c:d$ , $b^2=ac$ , b is called mean proportional
<b>Cross Product Rule</b>	If $a:b=c:d$ , then $ad = bc$
<b>Invertendo</b>	If $a:b=c:d$ , then $b:a = d:c$
<b>Alternendo</b>	If $a:b=c:d$ , then $a:c = b:d$
<b>Componendo</b>	If $a:b=c:d$ , then $(a+b):b = (c+d):d$
<b>Dividendo</b>	If $a:b=c:d$ , then $(a-b):b = (c-d):d$
<b>Componendo and Dividendo</b>	If $a:b=c:d$ , then $(a+b):(a-b) = (c+d):(c-d)$ or $(a-b):(a+b) = (c-d):(c+d)$
<b>Addendo</b>	If $a:b = c:d = e:f = \dots = k$ , then also $(a+c+e+\dots):(b+d+f+\dots) = k$

## INDICES

<b>Index / Indices</b>	Here in $4^2$ , 4 is base and 2 is power or index. Plural of index is indices
<b>Basic 1</b>	$a^0 = 1$ , any number raised to power zero equals to 1
<b>Basic 2</b>	$\sqrt{a} = a^{1/2}$ , $\sqrt[3]{a} = a^{1/3}$
<b>Law 1</b>	$a^m \times a^n = a^{(m+n)}$
<b>Law 2</b>	$a^m / a^n = a^{(m-n)}$
<b>Law 3</b>	$a^{(m)^n} = a^{m \times n} = (a^m)^n$
<b>Law 4</b>	$(ab)^n = a^n b^n$

## LOG

<b>Basic</b>	If $2^4=16$ [2 is base, 4 is power], then $\log_2 16 = 4$ (i.e log of 16 base 2)
<b>How to remember?</b>	2 should be raised to what power so that it becomes 16 2 ka kitna power karne wo 16 ho jaye, ans is 4
<b>Standard Result</b>	$\log_a a = 1$ , $\log_a 1 = 0$
<b>Law 1</b>	$\log_a(mn) = \log_a m + \log_a n$
<b>Law 2</b>	$\log_a\left(\frac{m}{n}\right) = \log_a m - \log_a n$
<b>Law 3</b>	$\log_a m^n = n \log_a m$
<b>Change of Base</b>	$\log_b m = \frac{\log_a m}{\log_a b}$





**EQUATIONS - BASICS**

<b>Equation Means</b>	mathematical statement of equality
<b>Identity Equation</b>	If equality is true for all the values of variable, ex. $2x + 3 = x + x + 3$
<b>Conditional Equation</b>	If the equality is true for certain value of the variable ex. $2x + 1 = 3$
<b>Solution or Root</b>	It is the value of variable that satisfies the equation
<b>Degree</b>	Highest power of variable in equation

**SIMPLE EQUATION**

Type	Linear equation with one unknown	Linear equation with two unknowns	Quadratic Equation	Cubic Equation
<b>Form</b>	$ax + b = 0$ , where a and b are constants	$ax + by + c = 0$ a,b,c are constants	$ax^2 + bx + c = 0$ a,b,c are constants with $a \neq 0$	$ax^3 + bx^2 + cx + d = 0$
<b>Degree</b>	1 (One)	1	2	3
<b>Roots</b>	1 (One)	1 each for both	2 ( $\alpha, \beta$ )	3
<b>Remarks</b>	NA	Need minimum two equations to get roots	Trial Error/ Formula based	Trial and Error
<b>Methods for solution</b>	NA	1. Elimination 2. Cross Multiplication	$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$	NA

**LINEAR EQUATIONS WITH TWO UNKNOWNNS**

<b>Elimination</b>	Eliminate one variable by algebraic operations on given equations, and then calculate the value of variable that remains. Using this value, find out the value of other root.
<b>Cross Multiplication</b>	$a_1x + b_1y + c_1 = 0, a_2x + b_2y + c_2 = 0$ Solution is given by: $\frac{x}{b_1c_2 - b_2c_1} = \frac{y}{c_1a_2 - c_2a_1} = \frac{1}{a_1b_2 - a_2b_1}$

**QUADRATIC EQUATION**

<b>Formula</b>	$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$												
<b>Sum of Roots</b>	$\alpha + \beta = -\frac{b}{a} = \frac{\text{coefficient of } x}{\text{coefficient of } x^2}$												
<b>Product of Roots</b>	$\alpha \times \beta = \frac{c}{a} = \frac{\text{constant term}}{\text{coefficient of } x^2}$												
<b>How to construct a quadratic equation</b>	$x^2 - (\text{sum of roots: } \alpha + \beta)x + \text{Product of Roots: } \alpha \times \beta = 0$												
<b>Nature of Roots</b>	<table border="1"> <thead> <tr> <th>Condition</th> <th>Nature of Roots</th> </tr> </thead> <tbody> <tr> <td><math>b^2 - ac = 0</math></td> <td>Real and Equal (<math>\alpha=\beta</math>)</td> </tr> <tr> <td><math>b^2 - ac &gt; 0</math></td> <td>Real and Unequal</td> </tr> <tr> <td><math>b^2 - ac &lt; 0</math></td> <td>Imaginary</td> </tr> <tr> <td><math>b^2 - ac</math> is a perfect square</td> <td>Real, Unequal and Rational</td> </tr> <tr> <td><math>b^2 - ac &gt; 0</math> but not perfect square</td> <td>Real, Unequal and Irrational</td> </tr> </tbody> </table>	Condition	Nature of Roots	$b^2 - ac = 0$	Real and Equal ( $\alpha=\beta$ )	$b^2 - ac > 0$	Real and Unequal	$b^2 - ac < 0$	Imaginary	$b^2 - ac$ is a perfect square	Real, Unequal and Rational	$b^2 - ac > 0$ but not perfect square	Real, Unequal and Irrational
Condition	Nature of Roots												
$b^2 - ac = 0$	Real and Equal ( $\alpha=\beta$ )												
$b^2 - ac > 0$	Real and Unequal												
$b^2 - ac < 0$	Imaginary												
$b^2 - ac$ is a perfect square	Real, Unequal and Rational												
$b^2 - ac > 0$ but not perfect square	Real, Unequal and Irrational												
<b>Irrational Roots</b>	If one root is $(m + \sqrt{n})$ , then other root will be $(m - \sqrt{n})$												

**MATRICES**

<b>Matrix</b>	A rectangular array of numbers (real/complex) with m rows and n columns
<b>Order of Matrix</b>	Order is $m \times n$ where m= no. of rows and n = no. of columns
<b>Row Matrix</b>	Matrix having only one row $[1 \quad 4 \quad 2]$
<b>Column Matrix</b>	Matrix having only one column $\begin{bmatrix} 1 \\ 4 \\ 2 \end{bmatrix}$
<b>Zero/ Null Matrix</b>	If all the elements of matrix (any order) are zero $\begin{bmatrix} 0 & 0 \\ 0 & 0 \end{bmatrix}$
<b>Square Matrix</b>	If in a matrix, no. of columns = no. of rows $\begin{bmatrix} 1 & 3 \\ 9 & 2 \end{bmatrix}$
<b>Rectangular Matrix</b>	If in a matrix, no. of columns $\neq$ no. of rows $\begin{bmatrix} 1 & 3 & 2 \\ 9 & 2 & 5 \end{bmatrix}$
<b>Leading Diagonal</b>	Diagonal elements starting from top left to bottom right
<b>Diagonal Matrix</b>	A square matrix where all the elements except leading diagonal elements are zero. $\begin{bmatrix} 1 & 0 & 0 \\ 0 & 2 & 0 \\ 0 & 0 & 3 \end{bmatrix}$
<b>Scalar Matrix</b>	A diagonal square matrix where all the leading elements are equal $\begin{bmatrix} 2 & 0 & 0 \\ 0 & 2 & 0 \\ 0 & 0 & 2 \end{bmatrix}$
<b>Unit Matrix</b>	A scalar matrix whose leading diagonal elements are equal to 1 $\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$
<b>Upper Triangle Matrix</b>	A matrix whose all the elements below the leading diagonal are zero $\begin{bmatrix} 3 & 4 & 5 \\ 0 & 1 & 9 \\ 0 & 0 & 5 \end{bmatrix}$
<b>Lower Triangle Matrix</b>	A matrix whose all the elements above the leading diagonal are zero $\begin{bmatrix} 3 & 0 & 0 \\ 5 & 1 & 0 \\ 2 & 8 & 5 \end{bmatrix}$
<b>Sub Matrix</b>	The matrix obtained by deleting one or more rows or columns or both of a matrix is called its sub matrix.
<b>Equal Matrices</b>	Two matrices are equal matrices if order of both is same and corresponding elements are same
<b>Addition/ Subtraction</b>	All the corresponding elements will be added/ subtracted to make a new matrix. (only possible when both matrix are of same order)
<b>Properties of Addition/ Subtraction</b>	<b>a.</b> $A+B = B+A$ [Commutative], <b>b.</b> $(A+B)+C = A+(B+C)$ [Associative], <b>c.</b> $k(A+B) = kA + kB$ , k is constant
<b>Multiplication</b>	Multiplication of two matrices is possible only when no. of columns of first matrix = no. of rows of second matrix. [To understand how to do multiplication – refer page 2.40 Example 3]
<b>Properties of Multiplication</b>	<b>a.</b> In general, $A \times B \neq B \times A$ , <b>b.</b> $(A \times B) \times C = A \times (B \times C)$ if defined, <b>c.</b> $A(B+C) = AB + AC$ also, $(A+B)C = AC+BC$ , <b>d.</b> if $AB = AC$ then $B \neq C$ in general, <b>e.</b> $A \times O = O$ [O means null matrix], <b>f.</b> $A \times I = IA = A$ [I means Unit Matrix],



<b>Transpose of a Matrix</b>	A matrix obtained by changing rows and columns of a matrix <b>A</b> is called as Transpose Matrix of <b>A</b> . It is denoted by - <b>A<sup>T</sup></b> or <b>A'</b>
<b>Properties of Transpose</b>	a. $A = (A')'$ b. $(A+B)' = A' + B'$ c. $(KA)' = KA'$ d. $(AB)' = B' \times A'$
<b>Symmetric Matrix</b>	If after transposing also there is no change in matrix. $A' = A$
<b>Skew Symmetric</b>	If after transposing a matrix, it becomes its negative. $A' = -A$

**DETERMINANTS**

<b>Determinants</b>	It is a valuation of a matrix using some rules. It only applies for square matrix						
<b>Denote</b>	It is denoted by <b>det A</b> or <b> A </b> or <b>Δ</b>						
<b>2 × 2 Matrix</b>	$\begin{vmatrix} a & b \\ c & d \end{vmatrix} = (ad - bc)$						
<b>3 × 3 Matrix</b>	$\begin{vmatrix} a_1 & a_2 & a_3 \\ b_1 & b_2 & b_3 \\ c_1 & c_2 & c_3 \end{vmatrix} = a_1(b_2c_3 - b_3c_2) - a_2(b_1c_3 - b_3c_1) + a_3(b_1c_2 - b_2c_1)$						
<b>Minor</b>	$M_{ij}$ = Minor of the element located in $i^{\text{th}}$ row and $j^{\text{th}}$ column. It is equal to determinant of sub matrix obtained after $i^{\text{th}}$ row and $j^{\text{th}}$ column.						
<b>Cofactor</b>	$C_{ij} = (-1)^{i+j} M_{ij}$						
<b>3 × 3 Formula using Cofactors</b>	$a_{11}c_{11} + a_{12}c_{12} + a_{13}c_{13}$						
<b>Properties</b>	<table border="1"> <tr> <td>a. Δ remains unaltered if its rows or columns are interchanged.</td> <td>b. Δ change its sign if two rows or columns interchanges</td> </tr> <tr> <td>c. If any two rows or columns of a determinant are identical, then Δ = 0</td> <td>d. If each element of matrix is multiplied by constant k, Δ will also get multiplied by k</td> </tr> <tr> <td>e. If some or all of the elements of a row or column of a determinant are expressed as sum, then Δ is expressed as sum of Δs</td> <td>f. Δ will remain same if equi-multiple of any row or column is added to each element of any row or column</td> </tr> </table>	a. Δ remains unaltered if its rows or columns are interchanged.	b. Δ change its sign if two rows or columns interchanges	c. If any two rows or columns of a determinant are identical, then Δ = 0	d. If each element of matrix is multiplied by constant k, Δ will also get multiplied by k	e. If some or all of the elements of a row or column of a determinant are expressed as sum, then Δ is expressed as sum of Δs	f. Δ will remain same if equi-multiple of any row or column is added to each element of any row or column
a. Δ remains unaltered if its rows or columns are interchanged.	b. Δ change its sign if two rows or columns interchanges						
c. If any two rows or columns of a determinant are identical, then Δ = 0	d. If each element of matrix is multiplied by constant k, Δ will also get multiplied by k						
e. If some or all of the elements of a row or column of a determinant are expressed as sum, then Δ is expressed as sum of Δs	f. Δ will remain same if equi-multiple of any row or column is added to each element of any row or column						
<b>Singular Matrix</b>	if $\det A = 0$ , then singular matrix otherwise non-singular matrix						
<b>Adjoint Matrix</b>	Adjoint of A Matrix is the transpose of the Cofactor Matrix						
<b>Inverse Matrix</b>	If A is a square matrix, and $\det A \neq 0$ (non-singular), then $A^{-1} = \frac{1}{ A } \times \text{Adj. A}$						
<b>Cramer's rule to find solution of linear eq. in 3 variables</b>	$x = \frac{\Delta_x}{\Delta}$ , $y = \frac{\Delta_y}{\Delta}$ , $z = \frac{\Delta_z}{\Delta}$ , provided $\Delta \neq 0$ [ $\Delta_x$ means determinant of matrix by replacing first column of matrix with RHS values of equations] See Example						
<b>Properties of Cramer's</b>	<table border="1"> <tr> <td>a. If <math>\Delta \neq 0</math>, the system has unique solution</td> <td>b. If <math>\Delta = 0</math> and atleast one of <math>\Delta_x, \Delta_y, \Delta_z \neq 0</math>, then system has no solution and it is inconsistent</td> </tr> <tr> <td colspan="2">c. If <math>\Delta = 0</math> and all of <math>\Delta_x, \Delta_y, \Delta_z \neq 0</math>, then system may or may not have solution. If it has solution, equations are dependent and there will be infinite no. of solutions. If it doesn't have solution, equations are inconsistent.</td> </tr> </table>	a. If $\Delta \neq 0$ , the system has unique solution	b. If $\Delta = 0$ and atleast one of $\Delta_x, \Delta_y, \Delta_z \neq 0$ , then system has no solution and it is inconsistent	c. If $\Delta = 0$ and all of $\Delta_x, \Delta_y, \Delta_z \neq 0$ , then system may or may not have solution. If it has solution, equations are dependent and there will be infinite no. of solutions. If it doesn't have solution, equations are inconsistent.			
a. If $\Delta \neq 0$ , the system has unique solution	b. If $\Delta = 0$ and atleast one of $\Delta_x, \Delta_y, \Delta_z \neq 0$ , then system has no solution and it is inconsistent						
c. If $\Delta = 0$ and all of $\Delta_x, \Delta_y, \Delta_z \neq 0$ , then system may or may not have solution. If it has solution, equations are dependent and there will be infinite no. of solutions. If it doesn't have solution, equations are inconsistent.							

**SEQUENCE AND SERIES**

<b>Sequence</b>	An ordered collection of numbers arranged as per some definite rule or pattern. $a_1, a_2, a_3, \dots, a_n$ is a sequence if you are able to identify pattern and there by the value of $a_n$ ( $n^{\text{th}}$ term)			
<b>Examples of Sequence</b>	<b>Collection</b>	<b>Ordered</b>	<b>Rule/ Pattern</b>	<b>Conclusion</b>
	1, 4, 9, 17, 18, .....	Yes	No	Not a sequence
	20, 17, 4, 3, 1, .....	Yes	No	Not a sequence
	1, 4, 7, 10, 13, .....	Yes	Yes +3 on each term	Yes Sequence
	20, 10, 5, 5/2, .....	Yes	Yes $\div 2$ on each term	Yes Sequence
<b>Terms</b>	$a_1, a_2, a_3, \dots, a_n$ are called as 1 <sup>st</sup> Term, 2 <sup>nd</sup> Term, 3 <sup>rd</sup> Term...nth term respectively			
<b>General Term</b>	$a_n$ is called as the $n^{\text{th}}$ term of the sequence or General Term			
<b>Types of sequence</b>	Finite Sequence – sequence having finite elements $\{a_i\}_{i=1}^n$ Infinite Sequence – sequence having infinite elements $\{a_i\}_{i=1}^{\infty}$			
<b>Series</b>	Sum of the elements of the sequence is called as Series. $S_n = \sum_{i=1}^n a_i$ $S_n = a_1 + a_2 + a_3 + \dots + a_n$ $S_1 = a_1, \quad S_2 = a_1 + a_2, \quad S_3 = a_1 + a_2 + a_3$			
<b>Arithmetic Progression (A.P.)</b>	AP is a sequence in which each next term is obtained by adding a constant 'd' to the preceding term. This constant 'd' is called as common difference. Let say $a$ = first term and $d$ = common difference, then AP can be written as – $a, a+d, a+2d, a+3d \dots a+(n-1)d$			
<b>Common Difference 'd'</b>	$d$ = any term – preceding term or $\{t_n - t_{n-1}\}$			
<b><math>n^{\text{th}}</math> term of an AP</b>	$t_n = a + (n - 1)d$			
<b>Insert AMs between two numbers</b>	If there is a problem to find out AMs between two number, consider it as an AP with first number as first term of AP and other number as last term of AP. Number of AMs required = no. of terms between first term and last term Example: If 3 AMs between a and b is asked, form an AP as below: $a, \_, \_, \_, b$			
<b>Sum of first n terms of an AP</b>	$S_n = \frac{n(a+t_n)}{2}$ or $S_n = \frac{n}{2} \{2a + (n - 1)d\}$			
<b>Other Useful Formulas</b>	Sum of first n natural numbers	$\frac{n(n+1)}{2}$		
	Sum of first n odd numbers	$n^2$		
	Sum of squares of first n natural numbers	$\frac{n(n+1)(2n+1)}{6}$		
	Sum of cubes of first n natural numbers	$\left\{\frac{n(n+1)}{2}\right\}^2$		



<b>Geometric Progression (G.P.)</b>	GP is a sequence of terms where each term is a constant multiple of preceding term. This constant multiplier is called as common ratio. Let say $a$ = first term and $r$ = common ratio then GP can be written as $a, ar, ar^2, ar^3, \dots, ar^{n-1}$
<b><math>n^{\text{th}}</math> term of a GP</b>	$t_n = ar^{(n-1)}$
<b>Common Ratio 'r'</b>	$r = \frac{\text{any term}}{\text{preceding term}} = \frac{t_n}{t_{n-1}}$
<b>Insert GMs between two numbers</b>	If there is a problem to find out GMs between two number, consider it as a GP with first number as first term of GP and other number as last term of GP. Number of GMs required = no. of terms between first term and last term Example: If 3 GMs between a and b is asked, form an GP as below: $a, \_, \_, \_, b$
<b>Sum of first n terms of a GP</b>	$S_n = \frac{a(1-r^n)}{(1-r)}$ when $r < 1$ , $\frac{a(r^n-1)}{(r-1)}$ when $r > 1$
<b>Sum of infinite GP</b>	$S_\infty = \frac{a}{(1-r)}$ [only possible when $r < 1$ ]

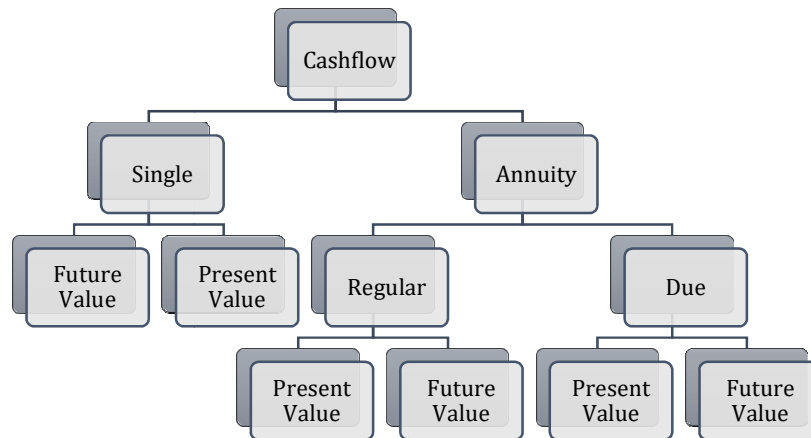
 Learn with CA. Pranav  
Transforming students to Professionals

**TIME VALUE OF MONEY**

<b>Basics</b>	→ The sum of money received in future is less valuable than it is today → Rs. 100 Note given today is more valuable than Rs. 100 note given a year later due to various reasons:											
	Risk Factor	Risk that payer will not give money										
	Liquidity Preference	Cash given today will be immediately available for spending, hence more valuable										
	Inflation	In general, as the time goes on purchasing power of the money gets reduced										
	Opportunity Cost	Cash given today could be invested to a better investment that could appreciate its value										
<b>Partied involved in Financial Transaction</b>	<table border="1"> <thead> <tr> <th>Name of Parties</th> <th>Treatment of Interest</th> </tr> </thead> <tbody> <tr> <td>Lender</td> <td>Income</td> </tr> <tr> <td>Borrower</td> <td>Expense</td> </tr> <tr> <td>Investor</td> <td>Income</td> </tr> <tr> <td>Investee</td> <td>Expense</td> </tr> </tbody> </table>		Name of Parties	Treatment of Interest	Lender	Income	Borrower	Expense	Investor	Income	Investee	Expense
	Name of Parties	Treatment of Interest										
	Lender	Income										
	Borrower	Expense										
	Investor	Income										
Investee	Expense											
<b>Simple Interest</b>	Formula	$S.I. = \frac{P \cdot r \cdot t}{100}$										
	$P$	Principal means amount of money invested or loan taken										
	$r$	Rate of simple interest per annum										
	$t$	Time of loan / investment in years										
	Accumulated Amount under SI	Amount under SI = Principal + Simple Interest (amount is also called as Balance)										
<b>Compound Interest vs. Simple Interest</b>	<table border="1"> <thead> <tr> <th>Simple Interest</th> <th>Compound Interest</th> </tr> </thead> <tbody> <tr> <td>                             → Interest earned is withdrawn every time it is earned                              → No re-investment of interest earned in earlier periods                              → Amount includes Principal and Interest on that Principal                         </td> <td>                             → Interest earned is not withdrawn till maturity                              → Re-investment of interest earned will be done                              → Amount includes Principal and Interest on that Principal and interest on interest earned in the earlier periods                         </td> </tr> </tbody> </table>	Simple Interest	Compound Interest	→ Interest earned is withdrawn every time it is earned → No re-investment of interest earned in earlier periods → Amount includes Principal and Interest on that Principal	→ Interest earned is not withdrawn till maturity → Re-investment of interest earned will be done → Amount includes Principal and Interest on that Principal and interest on interest earned in the earlier periods							
	Simple Interest	Compound Interest										
→ Interest earned is withdrawn every time it is earned → No re-investment of interest earned in earlier periods → Amount includes Principal and Interest on that Principal	→ Interest earned is not withdrawn till maturity → Re-investment of interest earned will be done → Amount includes Principal and Interest on that Principal and interest on interest earned in the earlier periods											
<table border="1"> <tr> <td>Meaning</td> <td>The rate of interest stated in question does not always mean that effectively interest charged/ received will be same % when compared at annual level. Effectiveness depends on Compounding.</td> </tr> <tr> <td>Higher the compounding for a rate of interest</td> <td>Higher the effective rate for the year</td> </tr> <tr> <td>Formula</td> <td><math>E = [(1 + i)^n - 1]</math></td> </tr> <tr> <td><math>n</math></td> <td>here n means no. of periods in one years considering the compounding</td> </tr> </table>	Meaning	The rate of interest stated in question does not always mean that effectively interest charged/ received will be same % when compared at annual level. Effectiveness depends on Compounding.	Higher the compounding for a rate of interest	Higher the effective rate for the year	Formula	$E = [(1 + i)^n - 1]$	$n$	here n means no. of periods in one years considering the compounding				
Meaning	The rate of interest stated in question does not always mean that effectively interest charged/ received will be same % when compared at annual level. Effectiveness depends on Compounding.											
Higher the compounding for a rate of interest	Higher the effective rate for the year											
Formula	$E = [(1 + i)^n - 1]$											
$n$	here n means no. of periods in one years considering the compounding											
<b>Effective Rate of Interest</b>												



<b>Compound Interest</b>	<p>Compounding Frequency and Conversion Periods</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Conversion Period</th> <th>Compounding Frequency</th> </tr> </thead> <tbody> <tr> <td>Yearly</td> <td>1</td> </tr> <tr> <td>Half-yearly</td> <td>2</td> </tr> <tr> <td>Quarterly</td> <td>4</td> </tr> <tr> <td>Monthly</td> <td>12</td> </tr> <tr> <td>Daily</td> <td>365</td> </tr> </tbody> </table> <p>While calculating compound interest, we need to adjust interest rate and time period using compounding frequency.</p>	Conversion Period	Compounding Frequency	Yearly	1	Half-yearly	2	Quarterly	4	Monthly	12	Daily	365
	Conversion Period	Compounding Frequency											
	Yearly	1											
	Half-yearly	2											
	Quarterly	4											
	Monthly	12											
	Daily	365											
	<p>Formula for Accumulated Amount of CI</p> $A = P(1 + i)^n$												
<p><math>A</math></p> <p>Accumulated amount as per CI</p>													
<p><math>P</math></p> <p>Principal means amount of money invested or loan taken</p>													
<p><math>i</math></p> <p>Interest rate (adjusted as per compounding) e.g. If rate of interest given is <math>r=10\%</math> and if compounding is half-yearly, <math>i = \frac{10\%}{2} = 5\% = 0.05</math></p>													
<p><math>n</math></p> <p>It means no. of periods (not necessarily no. of years). It depends on type of compounding. E.g. if compounding is quarterly and <math>t = 2</math> years, it means we will have <math>2 \times 4 = 8</math> no. of periods. <math>n=8</math></p>													
<p>Shortcut in calculator to calculate amount</p> <p>Example: <math>P=1000, i = 10\%, n=3</math> then  <i>Calculator Steps: Write P i.e [1000] then press</i>  <math>[+] [10] [%] [+] [10] [%] [+] [10] [%]</math> (three times because <math>n=3</math>)</p>													
<p>Direct Formula of Amount in Calculator</p> <p>Example: <math>P=1000, i = 10\% = 0.1, n=3</math> then  <i>Calculator Steps: [1 + 0.1] [x] [=] [=] (first equal will be considered as power 2, second as 3 and so on) [x] 1000 (Principal)</i></p>													
<p>How to calculate CI?</p> $A = P + CI \Rightarrow CI = A - P$ $CI = P(1 + i)^n - P$ $CI = P[(1 + i)^n - 1]$													
<b>Annuity</b>	<table border="1" style="width: 100%;"> <tr> <td style="width: 30%;">Definition</td> <td> <ul style="list-style-type: none"> <li>→ Sequence of periodic payments (installment)</li> <li>→ Same amount</li> <li>→ Regularly</li> <li>→ For a specified period of time</li> </ul> </td> </tr> <tr> <td>Annuity Regular</td> <td>Installment commencing from the end of the period</td> </tr> <tr> <td>Annuity Due</td> <td>Installment commencing from the beginning of the period</td> </tr> </table>	Definition	<ul style="list-style-type: none"> <li>→ Sequence of periodic payments (installment)</li> <li>→ Same amount</li> <li>→ Regularly</li> <li>→ For a specified period of time</li> </ul>	Annuity Regular	Installment commencing from the end of the period	Annuity Due	Installment commencing from the beginning of the period						
	Definition	<ul style="list-style-type: none"> <li>→ Sequence of periodic payments (installment)</li> <li>→ Same amount</li> <li>→ Regularly</li> <li>→ For a specified period of time</li> </ul>											
	Annuity Regular	Installment commencing from the end of the period											
Annuity Due	Installment commencing from the beginning of the period												
<b>Future Value</b>	Future value is the cash value of an investment at some time in the future. It is tomorrow's value of today's money compounded at the rate of interest.												
<b>Present Value</b>	Present value is today's value of tomorrow's money discounted at the interest rate.												



Single cash flow	Meaning	Payment / Receipt one time at the beginning. No other payment/ receipt till maturity
	Formula of Future Value	$FV = PV (1 + i)^n$
	Formula for Present Value	$PV = \frac{FV}{(1 + i)^n}$
	Remark	Both the above formulas are similar to formula of Amount of compound interest. Principal is taken as PV and Amount is taken FV
Future value of Annuity	Formula for FV of Annuity Regular	$FVA = A_t \times [FVAF(n, i)]$ $FVA = A_t \left[ \frac{(1 + i)^n - 1}{i} \right]$ <p><math>A_t</math> = amount of installment or Annuity</p>
	Formula for FV of Annuity Due	$FVA\ Due = FVA \times (1 + i)$ <p>Calculate FVA regular normally and then multiply it by <math>(1 + i)</math></p>




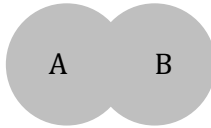
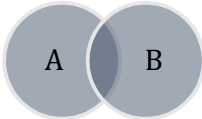
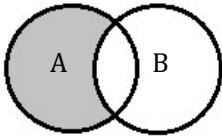

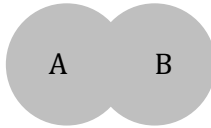
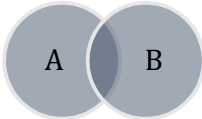
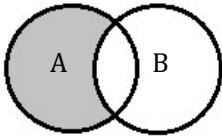

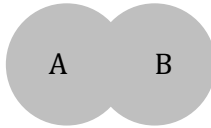
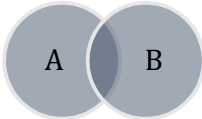
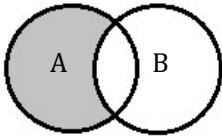
Present Value of Annuity	Formula for PV of Annuity Regular	$PVA = A_t \times [PVAF(n, i)]$ $PVA = A_t \left[ \frac{(1+i)^n - 1}{i(1+i)^n} \right]$ <p style="text-align: center;">or</p> $PVA = \frac{A_t}{i} \left[ 1 - \frac{1}{(1+i)^n} \right]$ <p><math>A_t</math> = amount of installment or Annuity</p>
	Formula for PV of Annuity Due	PVA Regular for one shorter period + Initial Cashflow
	Calculator Trick of PVAF (Present Value Annuity Factor)	$1+i$ $\div$ $=$ $=$ ... .. $n$ times $GT$



<b>Applications of Time Value of Money</b>	Particulars	Application	Remark	
	Sinking Fund	Future Value of Annuity is the amount which is required in future and annuity amounts are the regular savings required for creation of fund	Sinking fund means a fund created for specific purpose where a big amount of money is required at any specific point in future. An annuity is set aside and invested so that it will mature on that specific date giving the required amount.	
	Leasing	Present Value of Annuity (Lease Rentals) are compared with Asset Cash down price	Lessor	Owner of Asset, who gives asset on rent. Lease Rentals are income for Lessor
			Lessee	User of the asset who has taken asset on rent. Lease Rentals are expense for Lessee
	Capital Expenditure or Investment Decision	Present value of savings and benefits are compared with purchase value of asset, to decide whether asset to purchase or not	Capital Expenditure	Expenditure on capital assets in anticipation of future benefits
Future Benefits			Contribution from sales and other benefits or savings derived from a capital investment	
Valuation of Bond	Present value of interest income and maturity value is compared with the issue price of bond	Bond	It is a debt security. Type of loan taken by company from public. Like debentures	
		Face Value	Value written on the document of bond. This value is used to calculate Interest Amount	
		Issue Price	Actual payment made to purchase the bond	
		Maturity value	Amount to be received on redemption or maturity of bond	
<b>Perpetuity</b>	Meaning	An annuity that continues till infinite period of time is called as Perpetuity.		
	Formula Perpetuity	$\text{Present Value of Perpetuity} = \frac{A}{i}$		
	Formula Growing Perpetuity	$\text{Present Value of Growing Perpetuity} = \frac{A}{(i-g)}$ <i>g is constant growth rate</i>		
<b>Net Present Value</b>	NPV = Present Value of Cash Inflows – Present Value of Cash Outflows If NPV ≥ 0, accept the proposal, If NPV < 0, reject the proposal			
<b>Nominal Rate of Return</b>	Real Rate of Return = Nominal Rate of Return – Rate of Inflation			
<b>CAGR</b>	Compounded Annual Growth rate is the interest rate we used in Compound Interest. It is used to see returns on investment on yearly basis			



**SET**

<b>Set means</b>	Collection of well-defined distinct objects. It is usually denoted by capital letter								
<b>Element</b>	Each object of set is called as element. It is usually denoted by small letter								
<b>Braces Form</b>	When set shown as a list of elements within braces { } e.g. $A = \{1,3,5,7\}$								
<b>Descriptive Form</b>	Set can be presented in statement form e.g. $A =$ set of first four odd numbers								
<b>Set-Builder or Algebraic form</b>	Here Set is written in the algebraic form in this format - $\{x: x \text{ satisfies some properties or rule}\}$ . The method of writing this form is called as Property or Rule method								
<b>Belongs to</b>	It is denoted by ' $\in$ ', $a \in A$ means that element $a$ is one of the element of Set $A$ . $\notin$ used for do not belongs to.								
<b>Subset</b>	Set $A$ is a subset of Set $B$ if all the elements of Set $A$ also exist in Set $B$ . It is denoted as - $A \subset B$								
<b>Proper Subset</b>	$A$ is a proper subset of $B$ if $A$ is a subset of $B$ and $A \neq B$								
<b>Improper Subset</b>	Two equal sets are improper subsets of each other								
<b>Null Set</b>	A set having no elements is called as Null or Empty Set. It is denoted by $\phi$								
<b>No. of subsets</b>	Formula: no. of subsets = $2^n$ , no. of proper subsets = $2^n - 1$								
<b>Intersection denoted by <math>[A \cap B]</math></b>	Intersection set of $A$ and $B$ is a set that contains common elements between both of the sets								
<b>Union denoted by <math>[A \cup B]</math></b>	Union set of $A$ and $B$ is a set that contains all the elements contained in both the sets without repeating the common elements								
<b>Universal Set</b>	The set which contains all the elements under consideration in a particular problem is called the universal set generally denoted by $S$								
<b>Complement Set</b>	A complement set of set $P$ is a set that contains all the elements contained in the universe other than elements of $P$ . It is denoted by $P'$ or $P^c$								
<b>Set <math>(A-B)</math></b>	$A-B$ is a set that contains elements of $A$ other than those which are common in $A$ and $B$ . $[A-B = A - A \cap B]$								
<b>De Morgan's Law</b>	1. $(P \cup Q)' = P' \cap Q'$ 2. $(P \cap Q)' = P' \cup Q'$								
<b>Venn Diagrams</b>	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 20%;">Universal Set</td> <td></td> </tr> <tr> <td>Union Set <math>A \cup B</math></td> <td></td> </tr> <tr> <td>Intersection Set <math>A \cap B</math></td> <td></td> </tr> <tr> <td>Set <math>A-B</math></td> <td></td> </tr> </table>	Universal Set		Union Set $A \cup B$		Intersection Set $A \cap B$		Set $A-B$	
Universal Set									
Union Set $A \cup B$									
Intersection Set $A \cap B$									
Set $A-B$									
<b>2 sets - Formula</b>	$n(A \cup B) = n(A) + n(B) - n(A \cap B)$								
<b>3 sets - Formula</b>	$n(A \cup B \cup C) = n(A) + n(B) + n(C) - n(A \cap B) - n(B \cap C) - n(C \cap A) + n(A \cap B \cap C)$								

<b>Venn Diagram related some basics</b>	A or B , atleast A or B, either A or B	$A \cup B$
	A and B, Both A and B	$A \cap B$
	Only A means	$A - B$
	Only B means	$B - A$
	Neither A nor B	$(A \cup B)'$
<b>Cardinal Number</b>	No. of distinct elements contained in a finite Set A is called Cardinal Number. For Set $A = \{4,6,8,3\}$ , cardinal no. $n(A) = 4$	
<b>Equivalent Set</b>	Two sets A and B are equivalent sets if $n(A) = n(B)$	
<b>Power Set</b>	Collection of all possible subsets of a given set A is called Power set of Set A. It is denoted by $P(A)$	
<b>Ordered Pair</b>	Pair of two elements both taken from different Sets. E.g. if $a \in A$ and $b \in B$ then ordered pair is $(a,b)$ where first element will always from A and second always from B in every pair	
<b>Product of Sets</b>	Also called as Cartesian Product. If A and B are two non-empty sets, then set of all the ordered pairs such that $a \in A$ and $b \in B$ is called as Product Set. It is denoted by $A \times B$ . <b><math>[A \times B = \{(a,b): a \in A \text{ and } b \in B\}]</math></b>	
<b>Why Product?</b>	$n(A \times B) = n(A) \times n(B)$ i.e. cardinal no. of product set is equal to product of cardinal no. of each set	

## FUNCTION

<b>Relation</b>	Any subset of product set is called $A \times B$ is said to define relation from A to B. It's any collection of ordered pairs taken from a product set.	
<b>Function (set based definition)</b>	A relation where no ordered pairs have same first elements is called Function. First element of the ordered should not be repeated in the relation set. $(a,b)$ all a should be unique for different values of b	
<b>Function (non set based definition)</b>	A rule which associate all elements of A to B is called function from A to B. It is denoted by $f: A \rightarrow B$ or $f(x)$ of B	
<b>Image, Pre-image</b>	$f(x)$ is called the image of $x$ and $x$ is called the pre-image of $f(x)$ Pre-image is input and Image is output	
<b>Domain, Co-domain, Range</b>	Let $f: A \rightarrow B$ , then A is called domain of $f$ and B is called the co-domain of $f$ . Set of all the images (contained in B) of pre-images taken from A is called Range. Domain is a set of all pre-images and Range is a set of all images. Also Range is a subset of Co-domain.	
<b>Types of Functions</b>	One-One Function	Let $f: A \rightarrow B$ , if different elements in A have different images in B then $f$ is one-one or injective function or one-one mapping
	Onto Function	Let $f: A \rightarrow B$ , if every element in B has at least one pre-image in A, then $f$ is an onto or surjective function
	Into Function	Let $f: A \rightarrow B$ , if even a single element in B is not having pre-image in A, then it is said to be into function
	Bijection Function	If a function is both one-one and onto it is called as Bijection Function
	Identity Function	If domain and co-domain are same then function is identity function Let $f: A \rightarrow A$ and $f(x) = x$
	Constant Function	If all pre-images in A will have a single constant value in B then the function is constant function
<b>Equal Function</b>	Two functions $f$ and $g$ are said to be equal function if both have same domain and same range	
<b>Inverse Function</b>	Let $f: A \rightarrow B$ , is a one-one and onto function. Every value of $x$ (preimage) will	



	give unique image $f(x)$ using $f$ . If there is a function that takes value of images as input and gives pre-images as output, such function is called inverse function. It is denoted as $f^{-1}: B \rightarrow A$ .
<b>Composite Function</b>	A function of function is called composite function. Example: if $f$ and $g$ are functions, then $f[g(x)]$ and $g[f(x)]$ are composite functions. Also called as $f \circ g$ or $g \circ f$

## RELATION

<b>Relations</b>	Any subset of product set is called $A \times B$ is said to define relation from $A$ to $B$ . It's any collection of ordered pairs taken from a product set.	
<b>Domain and Range</b>	If $R$ is a relation from $A$ to $B$ , then set of all first elements of ordered pairs is domain and set of all second elements of ordered pairs is range.	
<b>Types of Relation</b>	Reflexive	If $S$ is a universal set, $S = \{a, b, c, \dots\}$ then $R$ is a relation from $S$ to $S$ . If this $R$ contains all the ordered pairs in the form $(a, a)$ in $S \times S$ , then it is a reflexive relation
	Symmetric	If $(a, b) \in R$ , then if $(b, a) \in R$ then $R$ is called Symmetric
	Transitive	If $(a, b) \in R$ and also $(b, c) \in R$ , then if $(a, c) \in R$ such relation is Transitive. [ if in a relation only $(a, b)$ is present but $(b, c)$ is not present we will consider it as transitive relation]
<b>Equivalence Relation</b>	If a relation is Reflexive, Transitive and Symmetric as well, then it is called as Equivalence Relation	

**Permutations and Combinations**

<b>Fundamental Principles of Counting</b>	Multiplication Rule AND → Multiply	If one thing can be done in 'm' ways and when it has been done, another thing can be done in 'n' different ways then the total number of ways of doing <b>both the things simultaneously = <math>m \times n</math></b>
	Addition Rule OR → Add	If two alternative jobs can be done in 'm' and 'n' way respectively then <b>either of the two jobs</b> can be done in <b>(m+n) ways</b>
<b>Factorial</b>	It is written as $n!$ or $n! = n(n-1)(n-2) \dots 3 \times 2 \times 1$ $0! = 1, 1! = 1, 2! = 2 \times 1, 3! = 3 \times 2 \times 1, 4! = 4 \times 3 \times 2 \times 1$	
<b>Permutations means</b>	It is the ways of <b>arranging or selecting</b> things from a group of things with due regard being paid <b>to order</b> of the arrangement or selection.	
Basic Example 1	<b>Arranging</b> three persons A,B,C for a group photograph can be done as {ABC, ACB, BAC, BCA, CAB, CBA}, thus total no. of ways is 6	
Basic Example 2	<b>Selecting</b> two persons as Winner and Runner-up for a contest having 4 participants P,Q,R,S can be done as {PQ, PR, PS, QP, QR, QS, RP, RQ, RS, SP, SQ, SR}, thus total no. of ways is 12 (here in the set of arrangement first element is winner and second is runner up)	
<b>Theorem for Permutations</b>	The number of permutations of n things chosen r at a time is given by ${}^n P_r = \frac{n!}{n-r!}$ or $n(n-1)(n-2) \dots (n-r+1)$	
Basic Example 3	${}^5 P_3 = \frac{5!}{(5-3)!} = \frac{5 \times 4 \times 3 \times 2 \times 1}{2 \times 1} = 5 \times 4 \times 3 = 60$ Or simply here $r = 3$ , so do reverse multiplication of 5 up to three terms so it will be $5 \times 4 \times 3 = 60$	
<b>Use of Theorem</b>	We are able to find no. of ways manually also (as done in Basic Example 1 and 2) but that is easy for lower values of n and r. When there is a higher value of n, manually creating the set of arrangements will be tedious which requires the need of this theorem. Check Basic Example 1 and Example 2 using theorem	
<b>Why <math>0! = 1</math></b>	${}^n P_n = \frac{n!}{(n-n)!} = \frac{n!}{0!}$ also, ${}^n P_n = n!$ , thus $\frac{n!}{0!} = n!$ , $0! = \frac{n!}{n!} = 1$	
<b>Special Formula</b>	$(n+1)! - n! = n \cdot n!$ (for proof - refer Example 10 Study Mat Page 5.6)	
<b>Question Patterns with remarks</b>	Type	Remark
	Calculate No. of words using letters of a particular word	Simple ${}^n P_r$ Note: Meaning of words has no relevance
	Group Photograph	${}^n P_n$
	Rank Awards first, second, third etc.	${}^n P_r$ here r is no. of ranks
	Theorem based questions, calculation of n or r with the given data	Directly apply theorem
Selection of different unique designations/ positions from a group of persons	${}^n P_r$ here r is no. of unique designations/ positions	



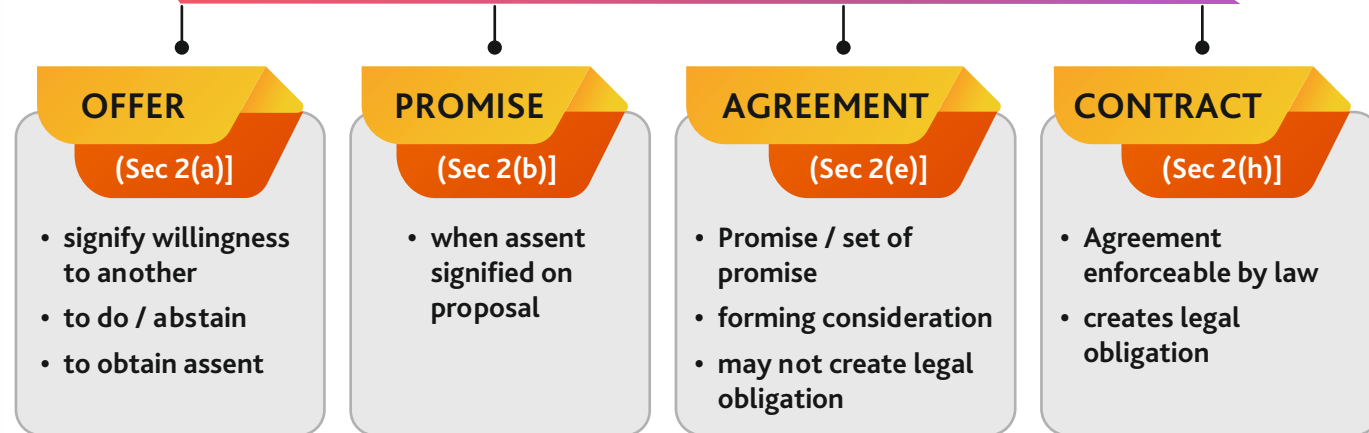
<b>Circular Permutations</b>	Above discussion was relevant for things that are arranged in a row. However when the things are arranged in a circle, the permutation is termed as circular.	
<b>Theorem: Circular Permutations</b>	The number of circular permutations of n different things chosen all at a time is <b>(n-1)!</b>	
<b>Standard Results</b>	number of ways of arranging n persons along a round table so that no person has the same two neighbors is	$\frac{1}{2}(n-1)!$
	the number of necklaces formed with n beads of different colors	$\frac{1}{2}(n-1)!$
<b>Permutation with Restrictions</b> Note: These two theorems are useful for formula based questions. For practical questions we will use logic. (explained in example)	Theorem 1	Number of permutations of n distinct objects taken r at a time when a particular object is not taken in any arrangement is ${}^{(n-1)}P_r$
	Theorem 2	Number of permutations of r objects out of n distinct objects when a particular object is always included in any arrangement is ${}^{(n-1)}P_{(r-1)}$
<b>Some tips useful while solving problems having restrictions</b>	<b>Requirement of Que.</b>	<b>Tips</b>
	Calculate permutation when two or more objects are always together	In that case consider that group of objects as 1 object for the purpose of ${}^n P_r$ formula, then multiply factorial of no. of objects in the group
	Calculate permutation when two or more objects will never come together	Step 1: Calculate the no. of ways without restriction using ${}^n P_r$ Step 2: Calculate Permutation of 2 or more thing always together (as per above point) Step 3: Result of Step 1 – Result of Step 2
	When there are two types of objects and ask is to calculate the ways in which no two objects of one the category will be together	In that case, that particular group of objects can be arranged in the alternate places as a neighbor of each object of other category Refer Example 10 Study Mat Page 5.13SS
<b>Standard Results</b>	Permutations when some of the things are alike, taken all at a time	$p = \frac{n!}{n_1! \times n_2! \times n_3!}$
	Permutations when each thing may be repeated once, twice, upto r times in any arrangement.	$n^r$

<b>Combinations</b>	The number of ways in which smaller or equal number of things are arranged or selected from a collection of things where the <b>order of selection or arrangement is not important</b> , are called combinations. It is just a GROUPING	
Basic Example 1	Grouping of two persons out of three persons A,B,C for a group photograph can be done as {AB, BC, AC}, thus total no. of ways is 3. Here AB and BA are same group and will be counted once only, even though the sequence is not same. Sequence has no relevance while finding combinations.	
Basic Example 2	Selection of persons for a committee of 2 out of total 4 applicants P,Q,R,S can be done in {PQ, QR, RS, PS, PR, QS} – total 6 ways. Here we used combinations because in the committee of two there is no designations all are same so sequence of selection does not matter.	
<b>Theorem of Combinations</b>	${}^n C_r = \frac{n!}{r!(n-r)!} \text{ or } {}^n C_r = \frac{{}^n P_r}{r!}$	
<b>Standard Results</b>	${}^n C_0 = 1, {}^n C_n = 1$	
<b>Complimentary Combinations</b>	${}^n C_r = {}^n C_{(n-r)}$ example: ${}^5 C_3 = {}^5 C_2$	
<b>Special Formulas</b>	${}^{n+1} C_r = {}^n C_r + {}^n C_{r-1}$ <p><b>Memorize:</b>                      Combination of (n+1) things when one thing is always included [<math>{}^n C_r</math>]+                      Combination of (n+1) things when one thing is always excluded [<math>{}^n C_{r-1}</math>]</p>	
<b>Permutation Special formula</b>	${}^n P_r = {}^{n-1} P_r + r \cdot {}^{n-1} P_{r-1}$ Memorize in the same way as above	
<b>Standard Results</b>	Combinations of n different things taking some or all of n things at a time	$2^n - 1$ [1 is subtracted because we are removing all rejection case]
<b>Question Patterns with remarks</b>	Type	Remark
	Different pocker hands in a pack of cards	When we play Poker, Teen Patti etc. only group of 5 cards, sequence in which it is picked does not matter hence we take combinations
	Formation of triangles when vertices (corner points) are given	We need three vertices to make a triangle. Now with group of three points to make a triangle and sequence of points does not matter, hence will use combination. Example: Using eight points how many triangle can be formed - ${}^8 C_3 = 56$
	No. of ways of invitation	Here also sequence does not matter, hence will use combination
	Selection of color balls from box	Here combination is used assuming that balls are of identical color
	No. of ways of forming words from n letter taking few letters and the letter are not unique	Refer Example 6 – Page 5.25 Study Mat
Number of diagonals of a polygon	${}^n C_2 - n$ , here n means no. of side of polygon (refer Q.10 Exercise 5C)	

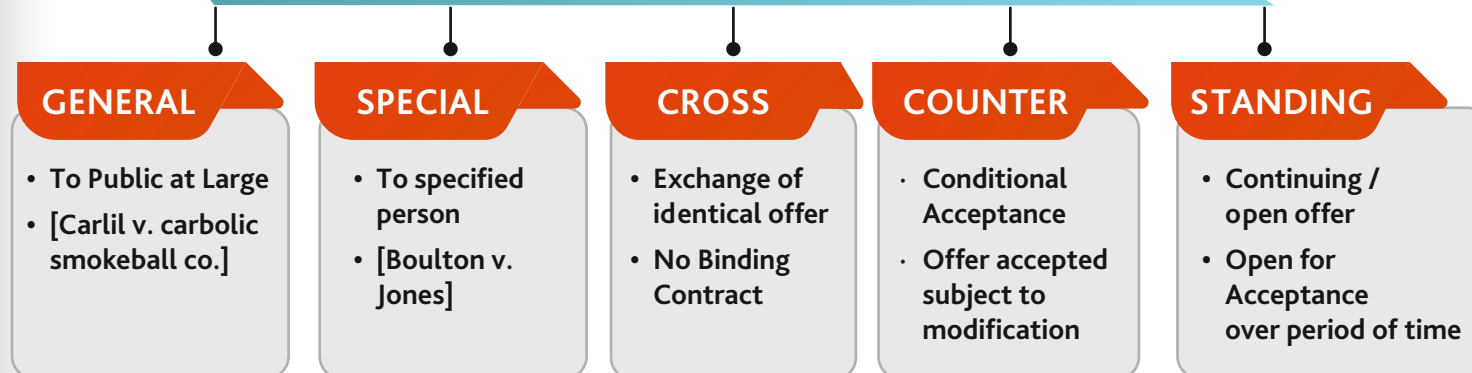


### OFFER + ACCEPTANCE = AGREEMENT

### AGREEMENT + ENFORCEABLE BY LAW = CONTRACT



### KINDS OF OFFER



### ESSENTIAL OF VALID OFFER

- Legal Relation**  
Legal relation must be created
- Certain, Definite, Not Vague**  
No contractual relationship if indefinite / vague
- Communicated to offeree**  
Must be communicated [Lalman Shukla v. Gauri Dutt]
- Assent**  
must be obtained
- Conditional**  
Can be subject to T&C
- Not contain term non-compliance of which would amount to acceptance
- Specific / General**  
made to public at large / specified person
- Express / Implied**  
offer can be in words or by conduct
- Invitation to offer**  
Terms proposed for negotiation
  - Act precedent to offer
  - Can be converted into offer

### LEGAL RULES - VALID ACCEPTANCE

- Given by person to whom offer is made  
General offer : Accepted by anyone  
Special offer : Accepted by specific person
- Absolute & unqualified**  
[Neale vs Merret]
- Must be communicated**  
Conditional acceptance ≠ Acceptance.  
[Brogden v. Metropolitan Railway Co.]
- Prescribed Mode**  
If mode prescribed Acceptance in that mode
- Time**  
If mentioned : within specified time  
If not : within reasonable time
- Mere Silence Not Acceptance**  
[Felthouse v. Bindley]
- By Conduct / Implied Acceptance**  
• Modes other than verbal / written

### Communication of offer

[Sec 4]

Complete

When comes to knowledge of offeree

### Communication of Acceptance

[Sec 4]

Complete

**Against the offeror**  
When put in course of transmission by the offeree

**Against the offeree**  
When comes to knowledge of the offeror

### Revocation of Acceptance & offer

[Sec 5]

### Revocation of offer

Anytime before it is accepted by offeree

Legal भाषा मे

"Revoked anytime before communication of Acceptance is complete as against the offeror"

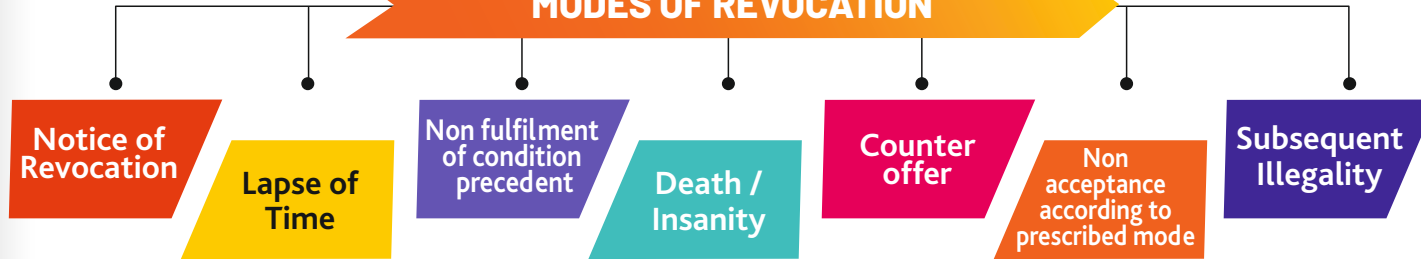
### Revocation of Acceptance

Anytime before it comes in knowledge of the offeror

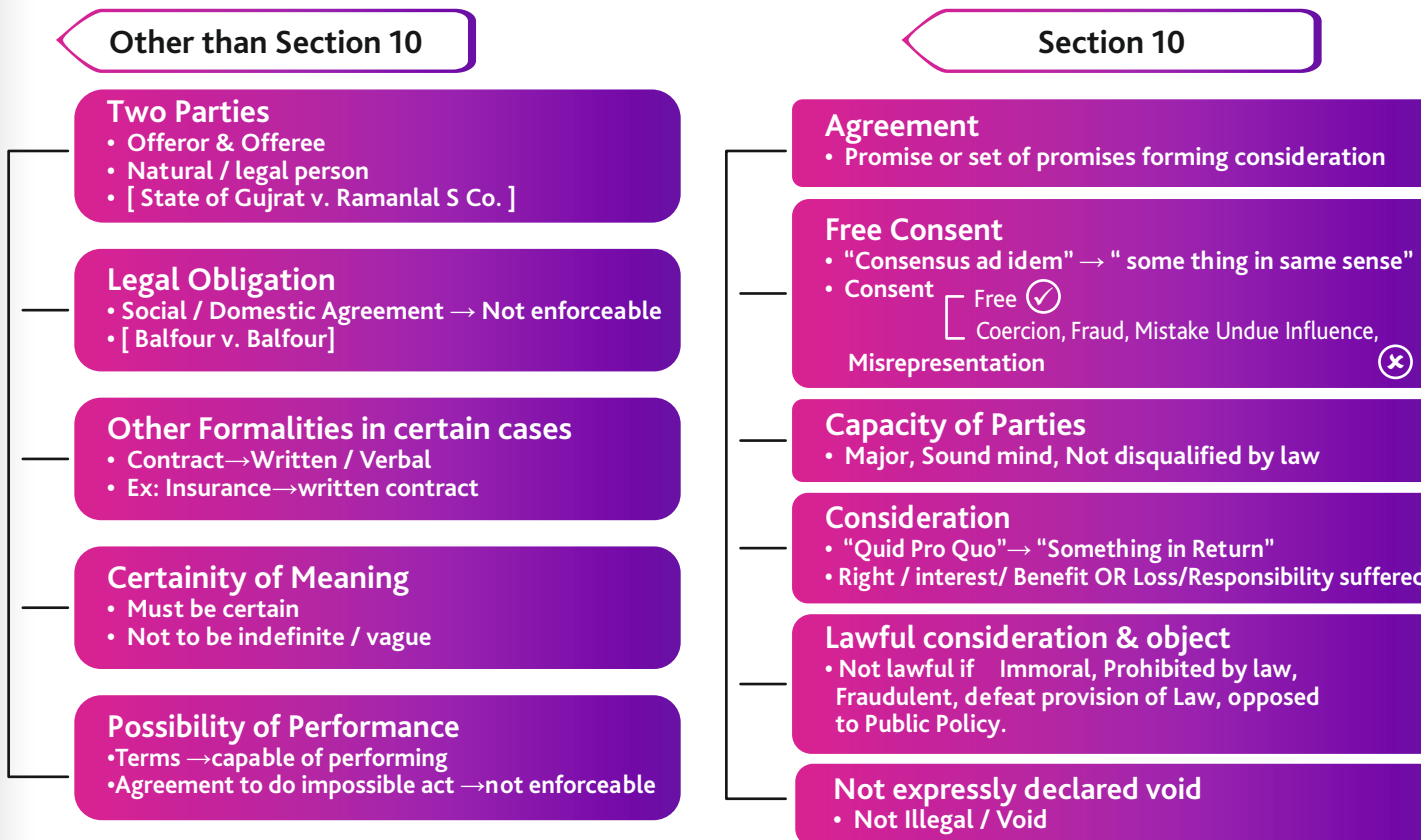
Legal भाषा मे

"Revoked anytime before communication of Acceptance is complete as against the offeree"

### MODES OF REVOCATION



### ESSENTIALS OF VALID CONTRACT

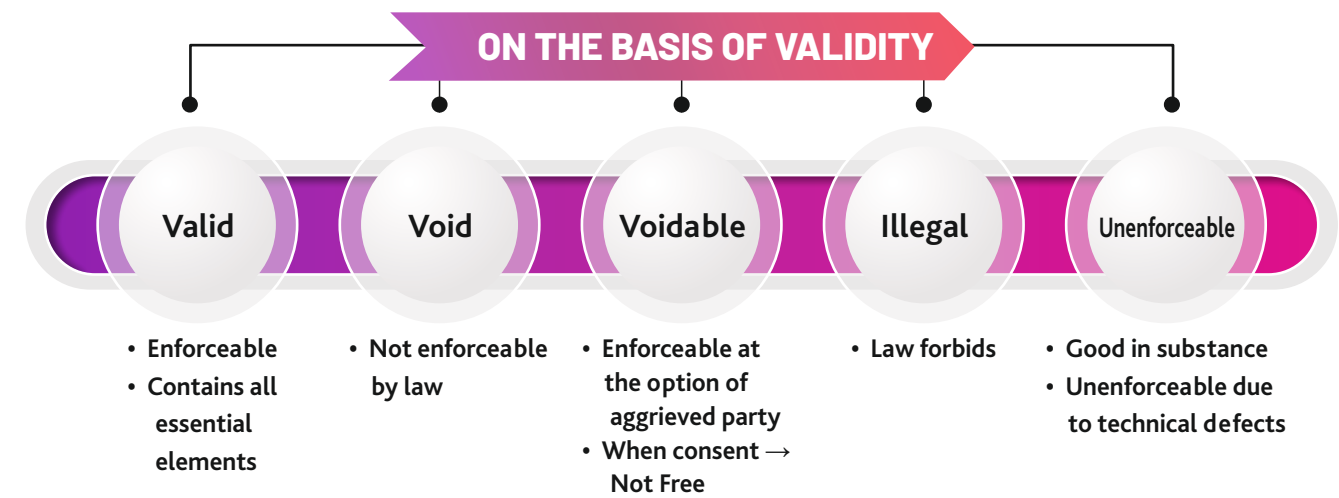


### TYPES OF CONTRACTS

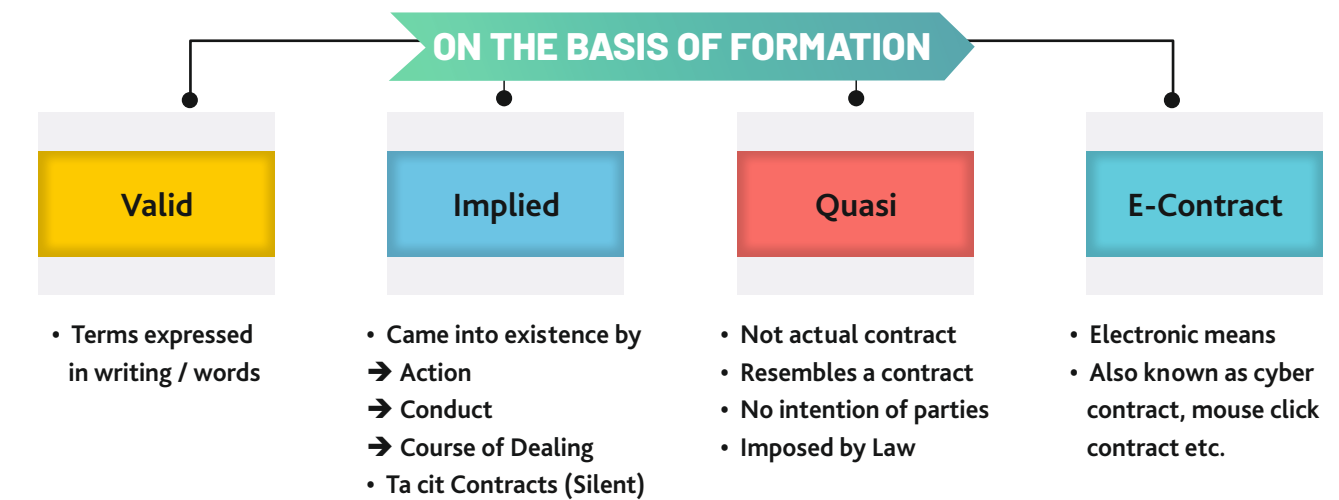
#### On the basis of



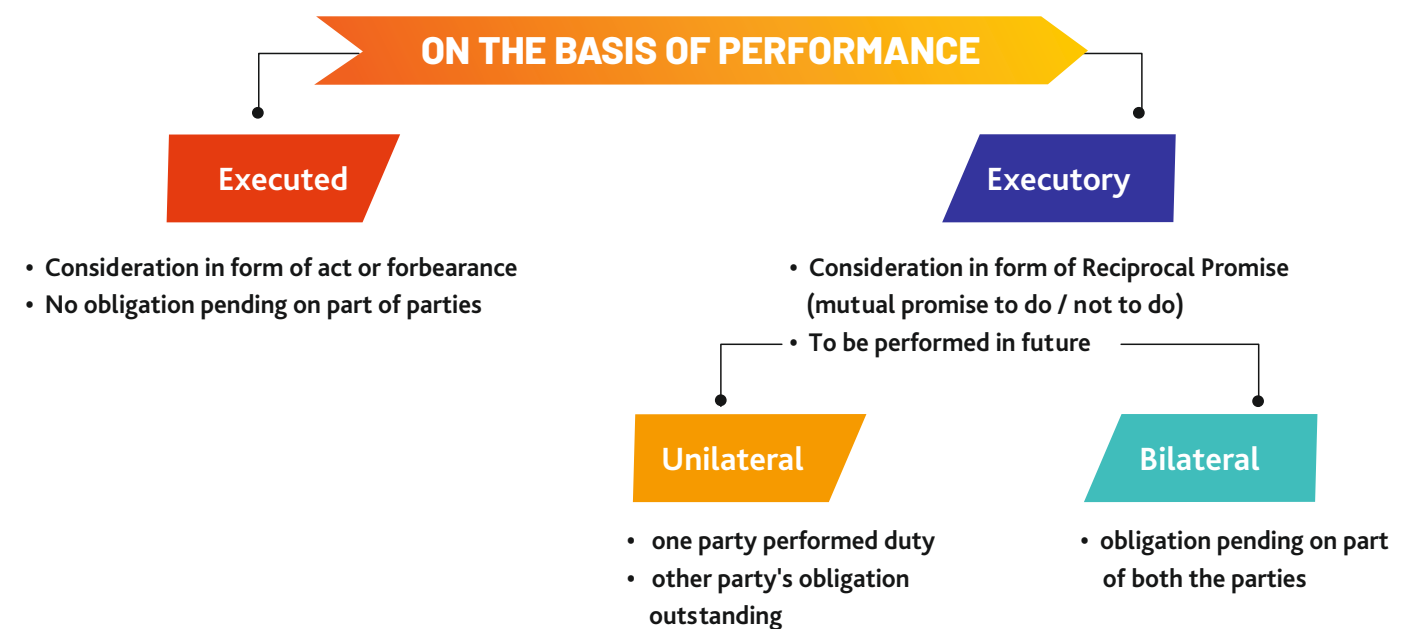
### ON THE BASIS OF VALIDITY



### ON THE BASIS OF FORMATION



### ON THE BASIS OF PERFORMANCE





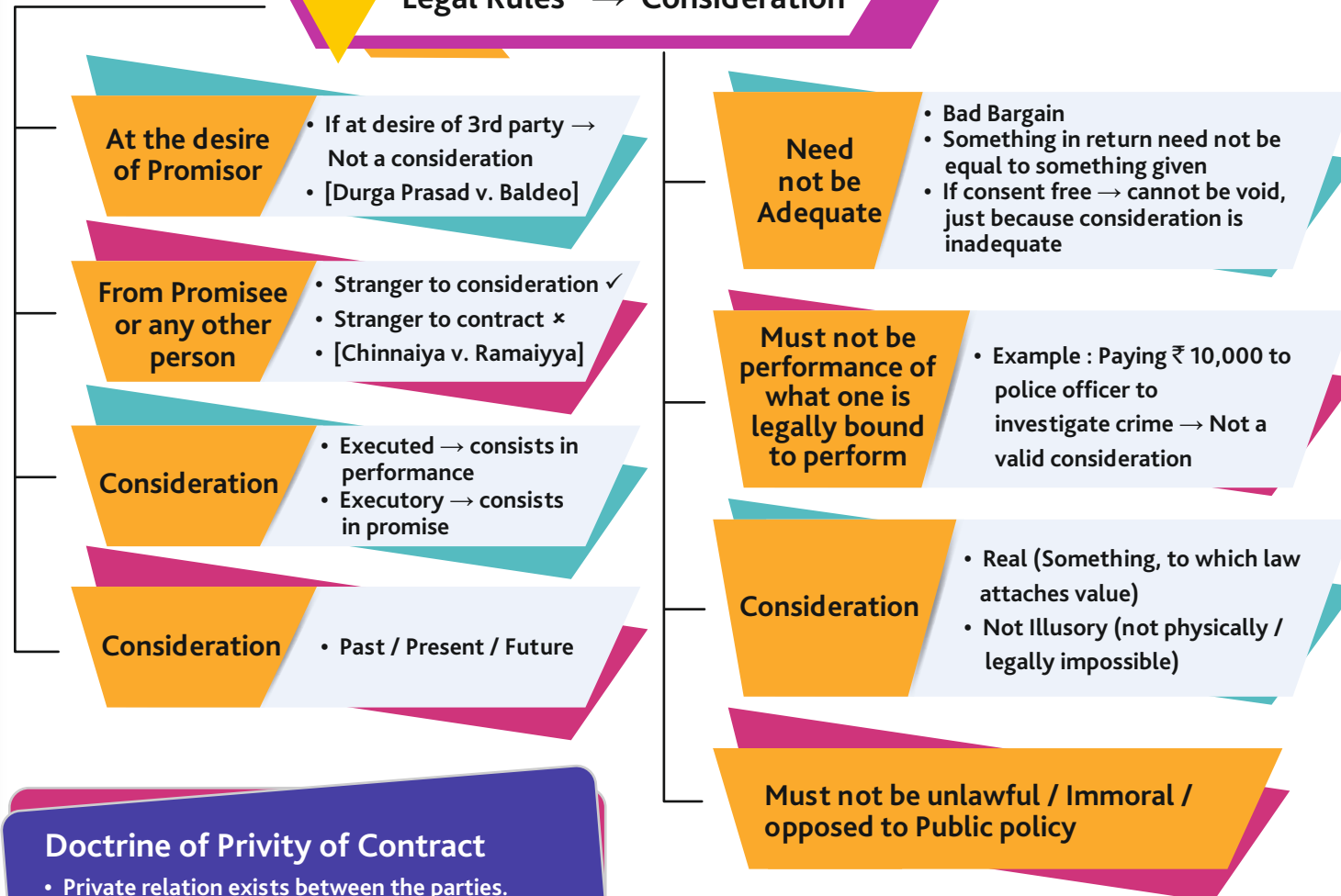
### CONSIDERATION

#### Section 2 (d)

- When at the desire of Promisor
- Promisee or any other person
- Has done or abstained (Past), does or abstain (Present), Promises to do or abstain (Future)

Such act / abstinence / Promise → Consideration

#### Legal Rules → Consideration



#### Doctrine of Privity of Contract

- Private relation exists between the parties.
- "Stranger to contract cannot sue"
- Only party to contract can sue.
- EXCEPTIONS → Suit by third party to contract

### SUIT BY THIRD PARTY TO CONTRACT

Type of Contract	Contracting Parties		3rd party
	1st party	2nd party	
→ Trust	Settler	Trustee	Beneficiary
→ Family Settlement	Family member	Family member	Family member not included in Contract
→ Marriage Contract	Family member	Family member	Female member
→ Assignment	First party	Assignor	Assignee
→ Estoppel by Acknowledgement of Liability	Giver	Receiver	Beneficiary
→ Covenant Running with Land	Seller	Buyer	Successor of seller
→ Agent	First party	Agent	Principal

#### Validity of Agreement without Consideration

General Rule : Agreement without consideration → Void But → certain exceptions

#### Natural Love & Affection Sec 25 (1)

- Near relationship
- In writing
- Registered under Law

#### Compensation for past voluntary services Sec 25 (2)

- Services rendered voluntarily for Promisor
- Promisor intended to compensate

#### Time Barred Debt Sec 25 (3)

- Promise in writing
- Signed by person or his agent to pay time Barred Debt

#### Agency

- Sec 185: No consideration necessary to create agency

#### Completed Gift Sec 25 (1)

- "No Consideration – No Contract" Do not Apply

#### Bailment Sec 148

- No consideration required to effect contract of "Gratuitous Bailment" (Free ऋ)

#### Charity Sec 148

- Promisee takes Liability
- On promise of person to contribute to Charity
- [Kadarnath v. Gorie Mohammad]

### OTHER ESSENTIAL ELEMENTS OF CONTRACT

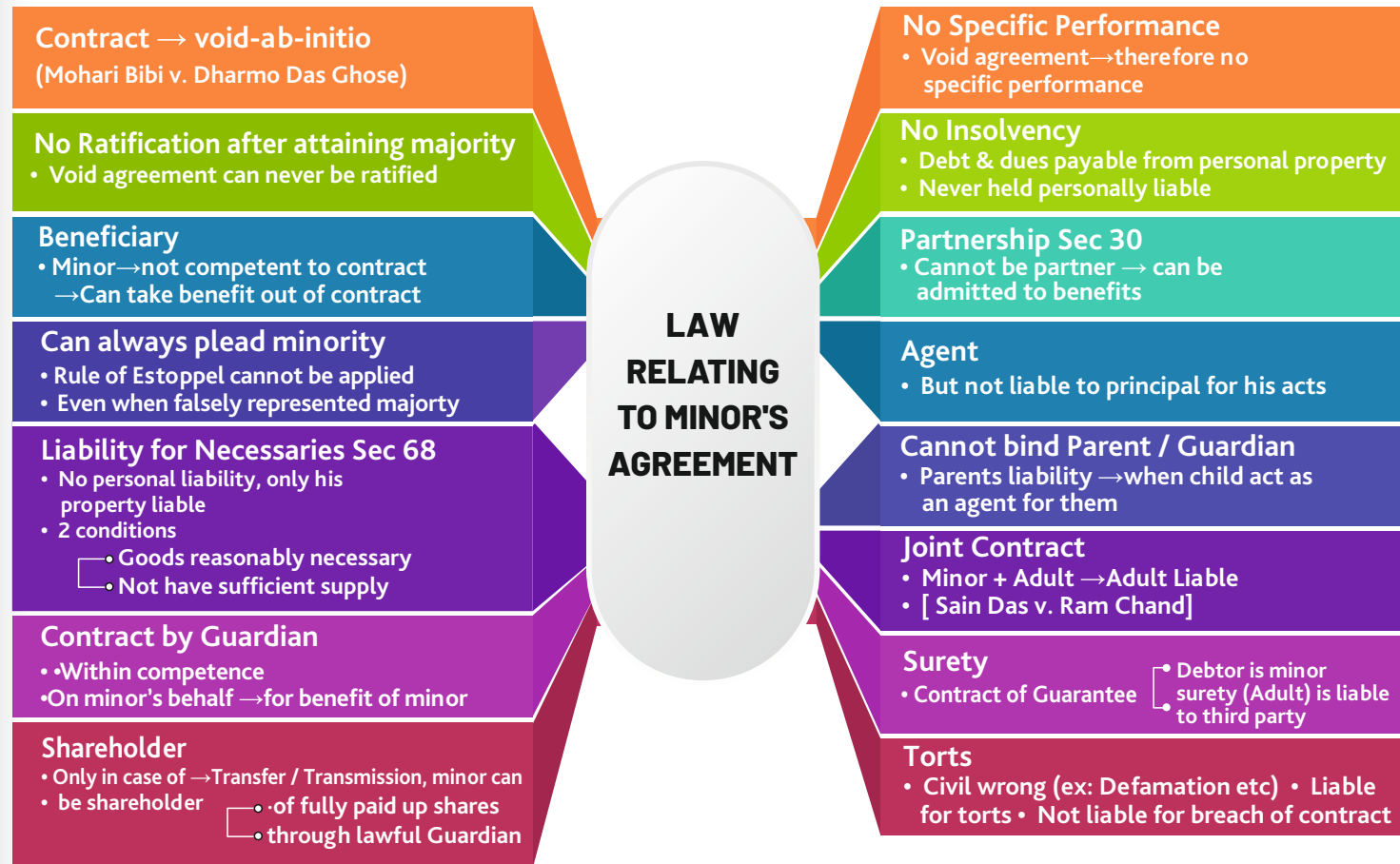
Section 11

Capacity to Contract

Major

Sound Mind

Not disqualified by Law



### PERSON OF SOUND MIND SEC 12

usually unsound mind occasionally sound mind

• Make contract, when of sound mind

usually sound mind occasionally unsound mind

• Not make contract, when of unsound mind

### NOT DISQUALIFIED BY LAW

Persons disqualified

Foreign Sovereign

Alien Enemy

Convicts

Insolvent

FREE CONSENT

Consent is Free, when not caused by

Coercion (Sec 15)

Undue Influence (Sec 16)

Fraud (Sec 17)

Misrepresentation (Sec 18)

Mistake (Sec 20, 21, 22)

VOIDABLE

VOID

#### COERCION

- Committing / threatening to commit any Act (Forbidden by IPC)
  - Unlawful detaining / threatening to detain any property
  - Intention : to cause person to make agreement
  - Effect : 1 Contract voidable
  - Effect : 2 Benefit received to be restored
  - Proceed from party to contract
  - Subject must be other contracting party
- Not Necessary

#### UNDUE INFLUENCE

- Near Relation between 2 parties
- One of them is position to dominate
- Person Deemed to be in position to dominate:-
  - Real & Apparent Authority (Father – Son)
  - Fiduciary Relationship (Trust) (Husband – Wife)
  - Mental Distress (Doctor Patient)
  - Unconscionable Bargain (Unreasonable)
- Effect: 1 Contract voidable
- Effect: 2 May be set aside by court

#### FRAUD

##### Commission of Following act:-

- Fact suggested → knows, not true
- Active concealment of fact
- Promise made without intention of performing
- Other act filled to deceive
- Any act declared by Law → as Fraud

##### Effect:-

- Contract voidable
- Sue for damages

##### Committed by:-

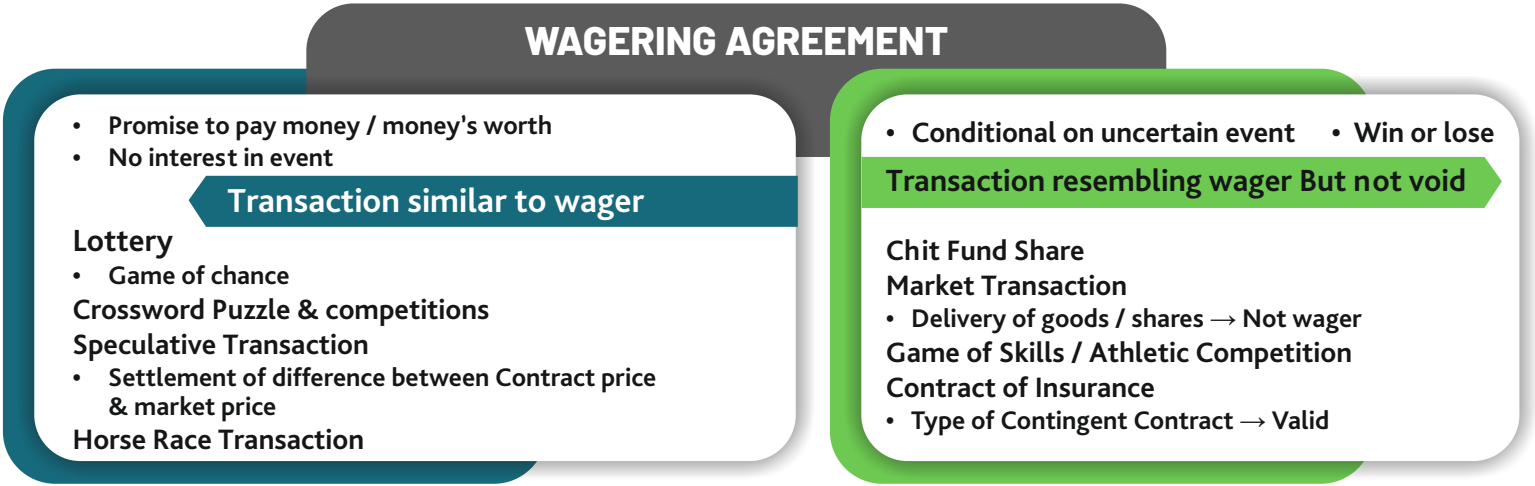
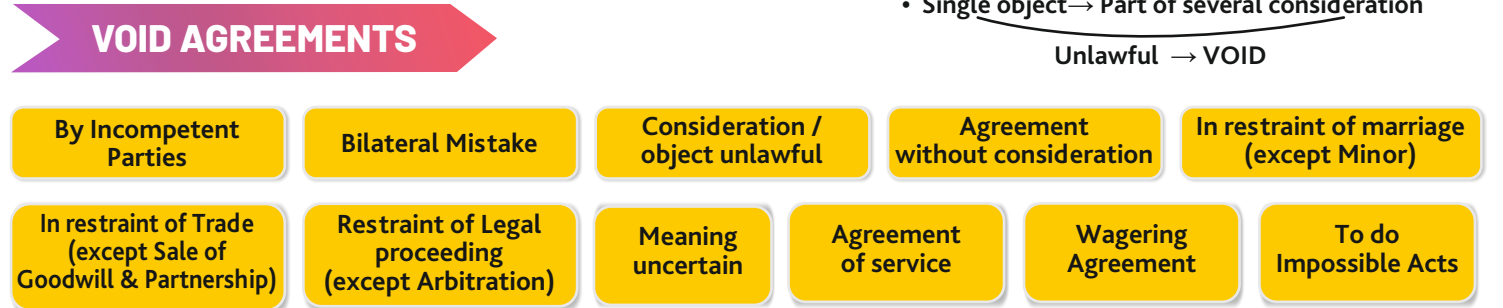
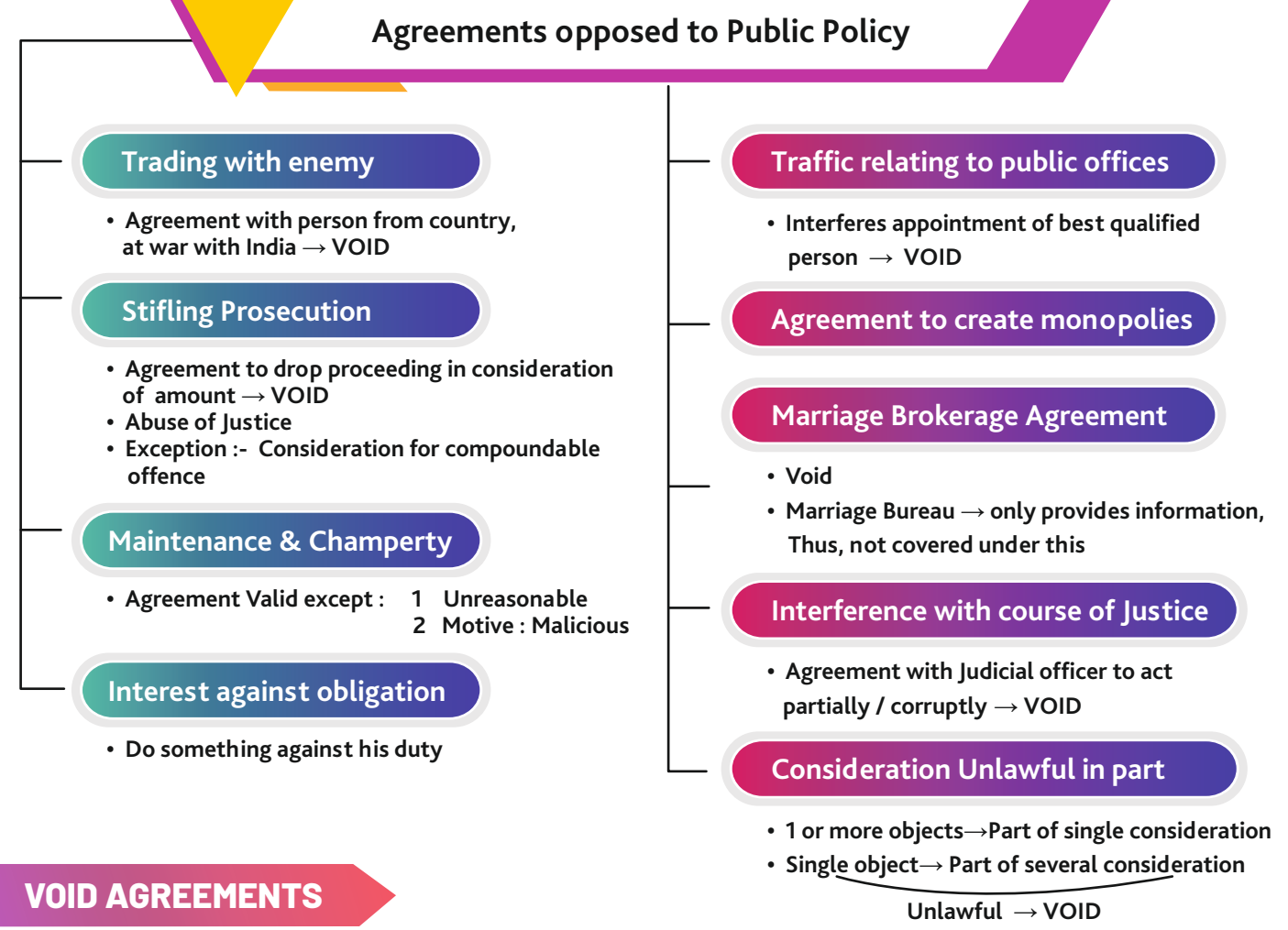
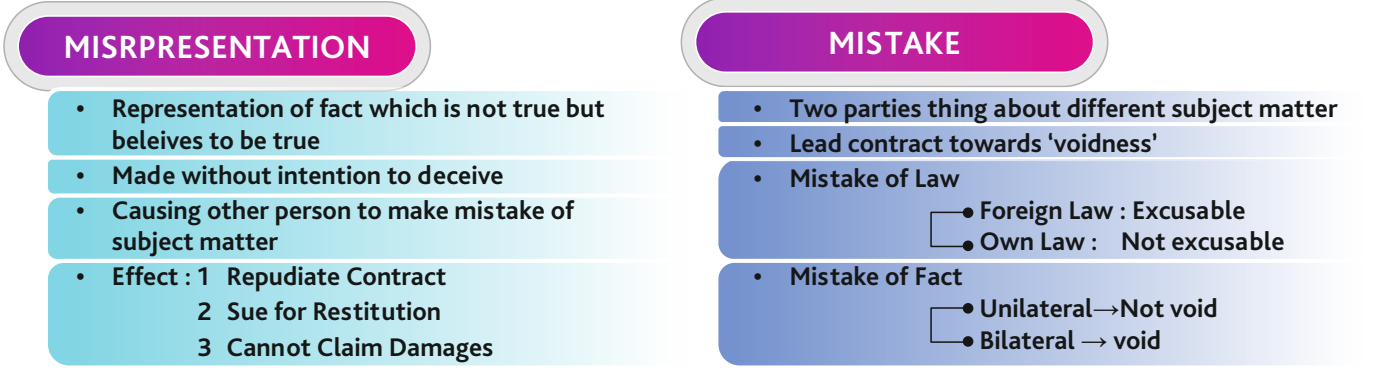
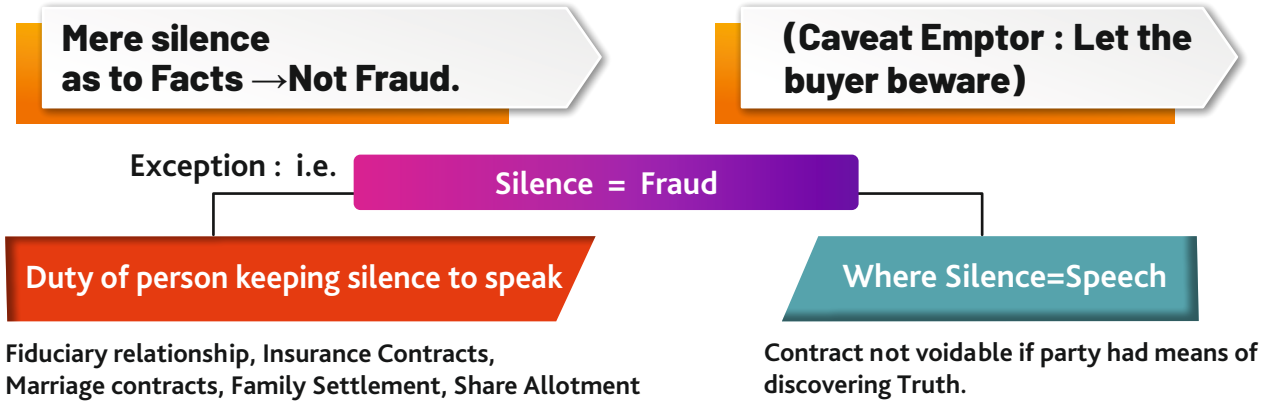
- Party to contract, with his connivance
- Agent of party to contract

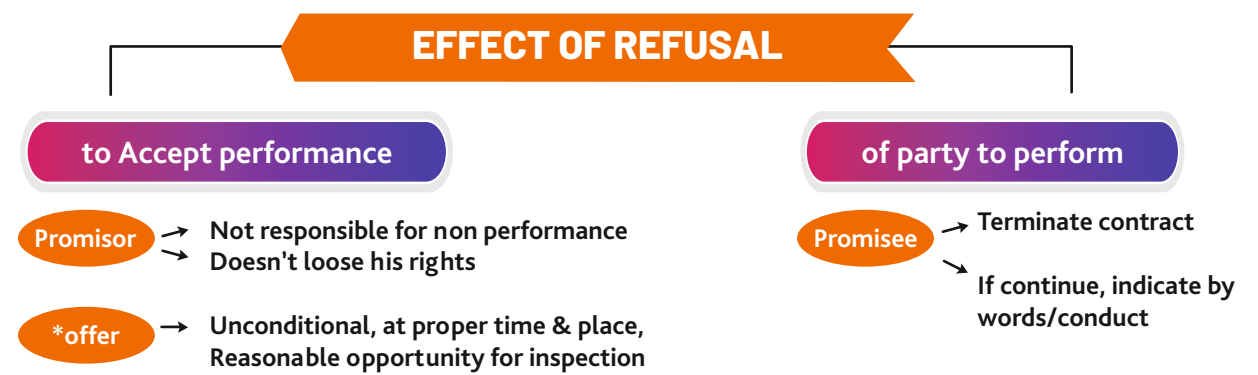
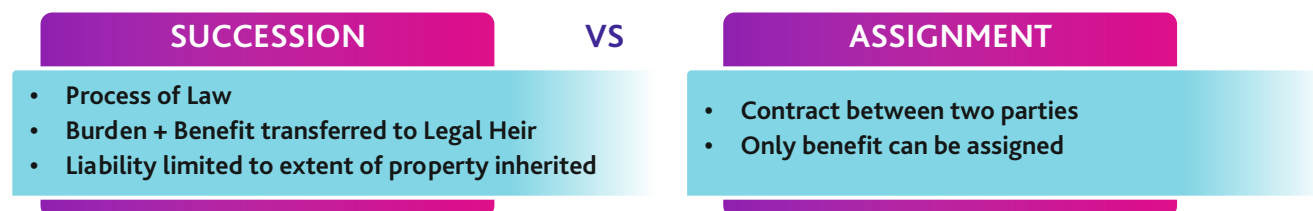
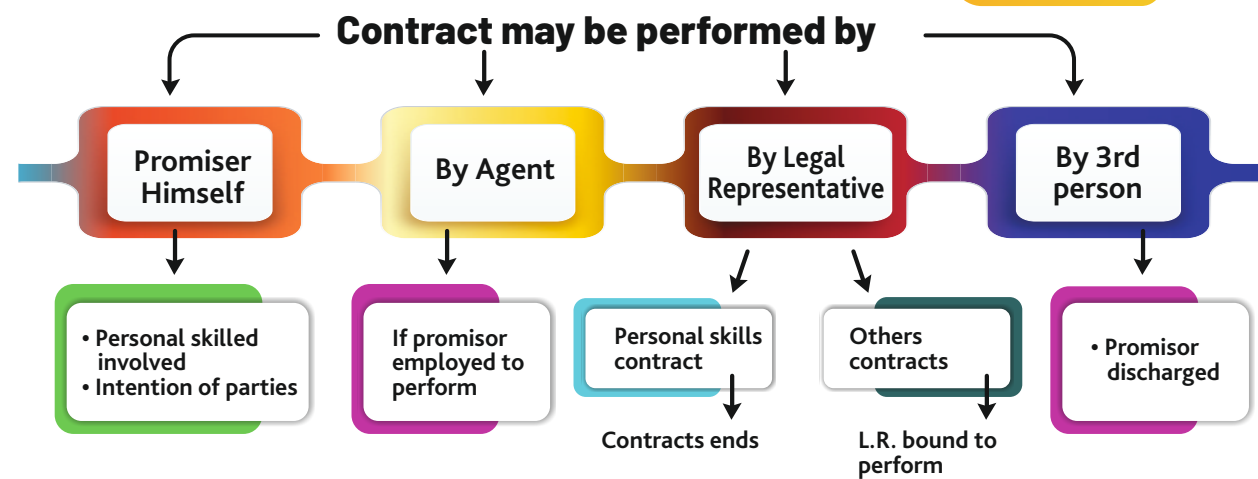
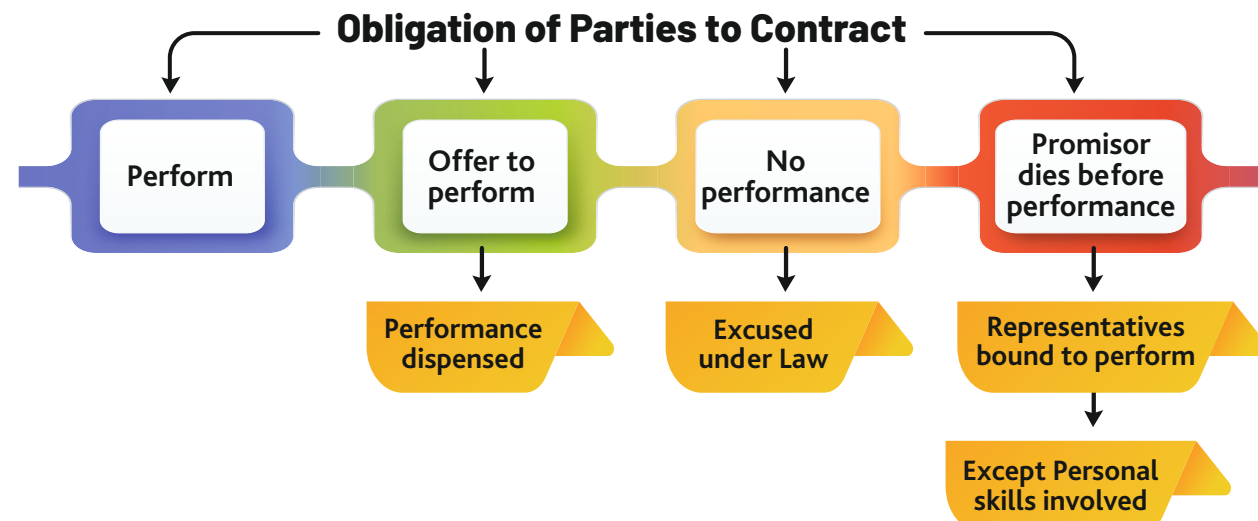
##### Intention:-

- To deceive
  - To induce to enter into contract
- OR

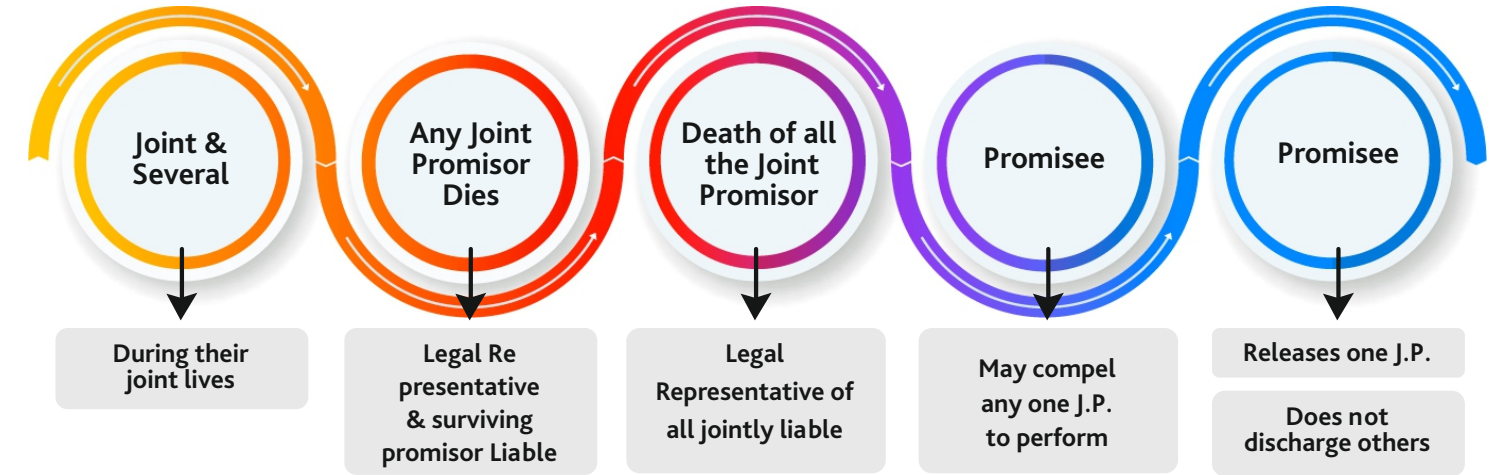
- Rescind → within reasonable time
- Insist performance



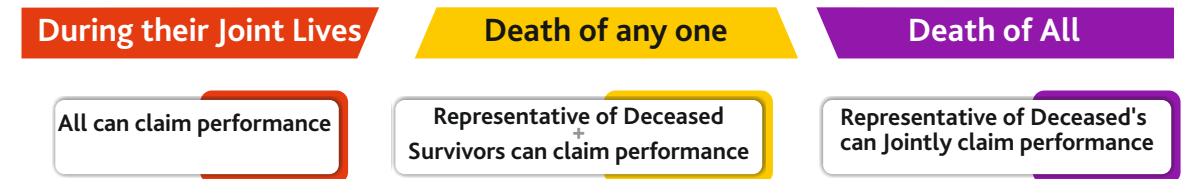




### Liability of Joint Promisor



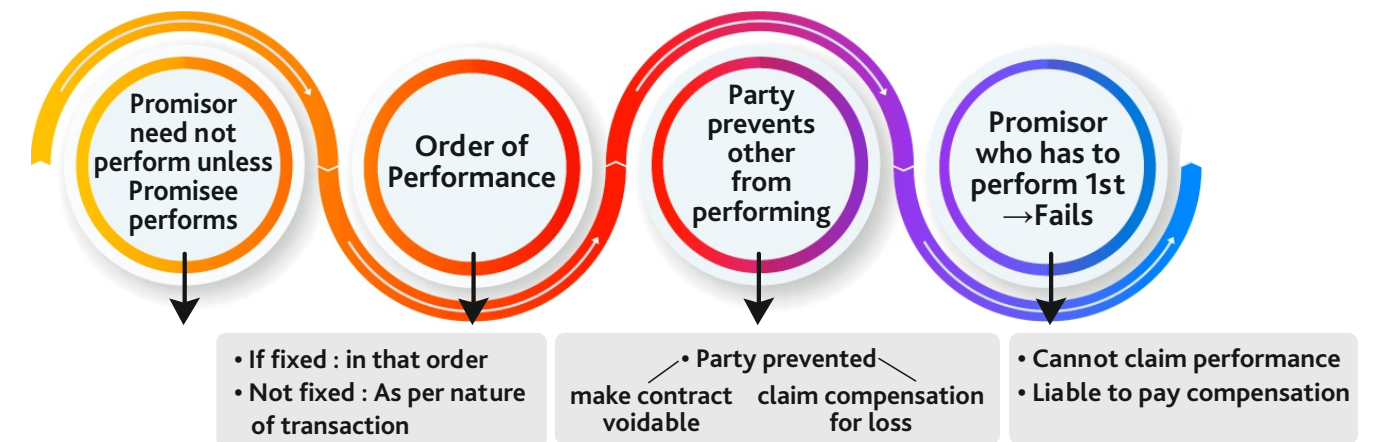
### RIGHT OF JOINT PROMISEE



### TIME & PLACE FOR PERFORMANCE



### Performance of Reciprocal Promise (mutual Promise to do / not to do)

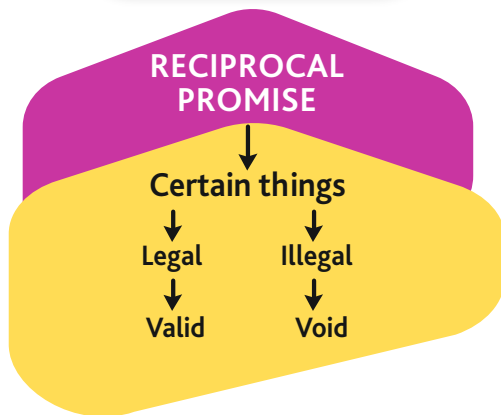
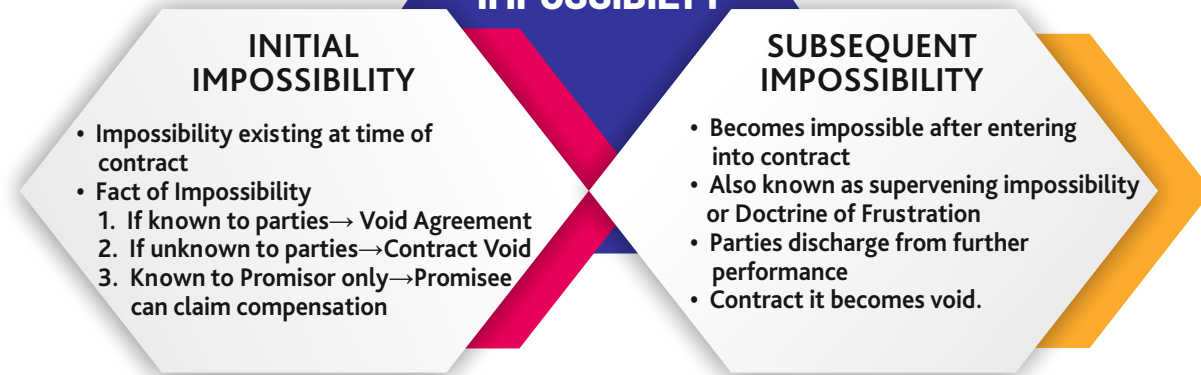




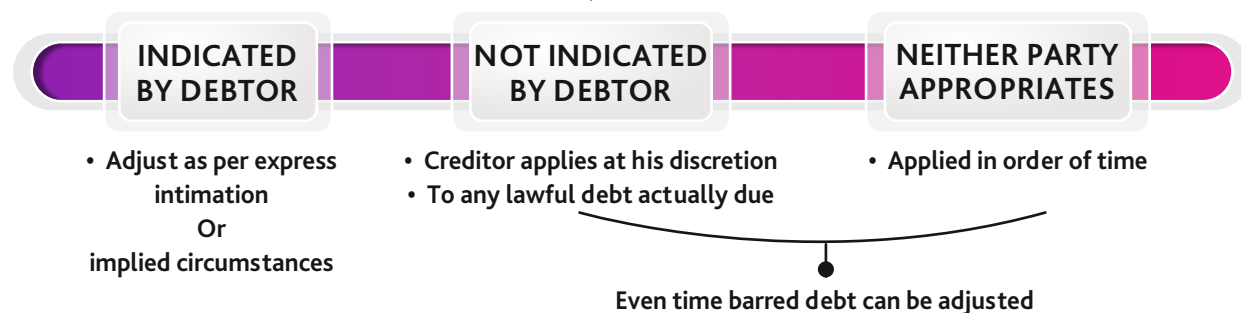
### EFFECT OF FAILURE TO PERFORM AT TIME FIXED



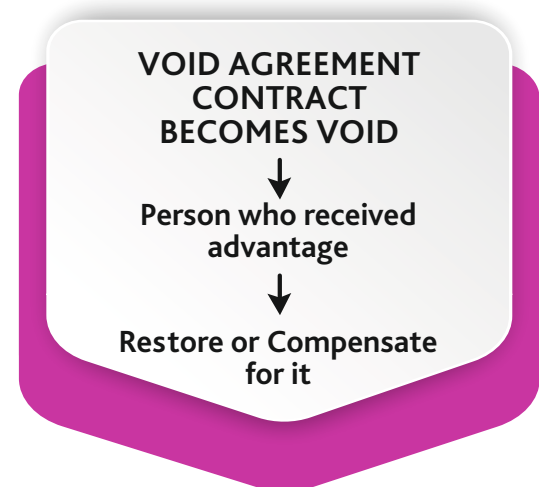
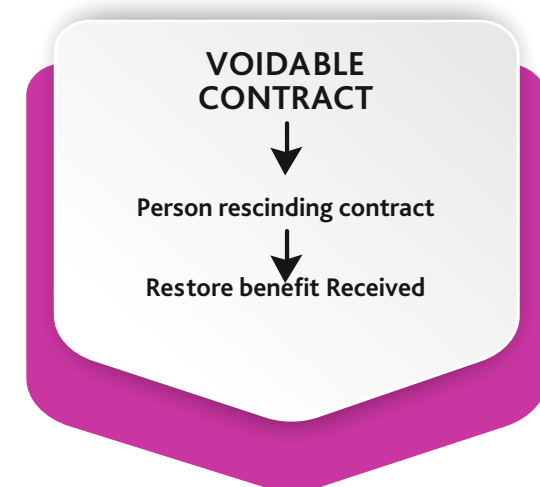
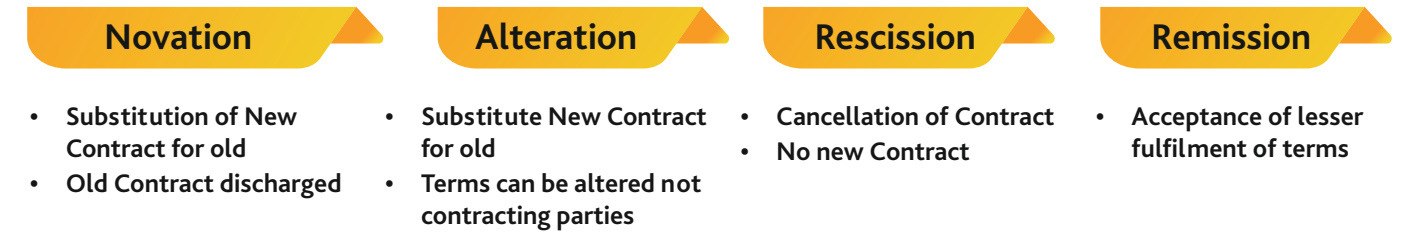
### IMPOSSIBILITY



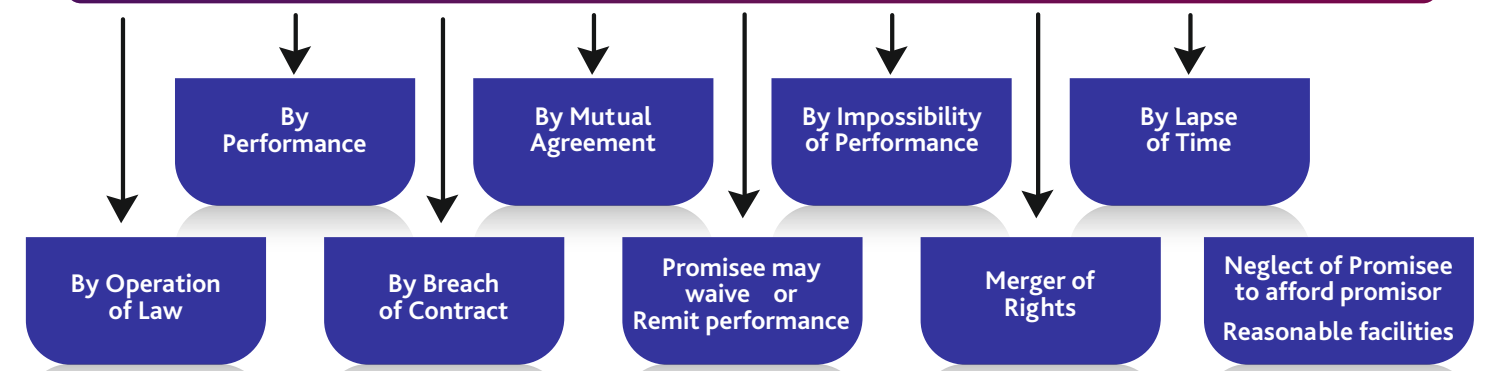
### APPROPRIATION OF PAYMENTS



### CONTRACTS WHICH NEED NOT BE PERFORMED



### DISCHARGE OF CONTRACT



**Breach FAILURE OF PARTY TO PERFORM HIS/ HER OBLIGATION UNDER CONTRACT**

**ANTICIPATORY**

- Breach occurring before time fixed for performance has arrived
- Express / Implied breach
- Effect —
  1. Rescind & Sue for Damages immediately.
  2. Not rescind & wait for performance
- Promisor may get benefit of supervening Impossibility

**ACTUAL**

- Breach occurs —
  1. when performance due
  2. during the performance
- Other party obtains Right of Action against defaulting party.

**REMEDIES FOR BREACH OF CONTRACT**

Suit for Damages

Rescission of Contract

Suit for Specific Performance

Suit for Injunction

Suit upon Quantum Meruit

**SUIT FOR DAMAGES**

**ORDINARY**

- Compensation for damages naturally arose during usual course of events.
- No Compensation for Remote / Indirect Loss

**SPECIAL**

- Arises on previous notice of special circumstances affecting contract

**VINDICTIVE / EXEMPLARY**

- Breach of Promise to marry
- Wrongful dishonour of cheque by Bank

**NOMINAL**

- No real damage suffered
- Establishes Right to decree

**DETERIORATION CAUSED BY DELAY**

- Damages recovered even without Notice
- PRE – FIXED DAMAGES**
  - Sum to be paid for breach → mentioned in contract

**LIQUIDATED DAMAGES/SPENALTY**

- Reasonable Compensation
- Genuine Pre estimate
- Not exceeding sum mentioned

- Exorbitant amount
- Create terror
- Sum payable in excess of Damage

**RECISSION OF CONTRACT**

- Contract broken
- Other party may rescind contract
- Can claim compensation

**SUIT FOR SPECIFIC PERFORMANCE**

- Damages are not adequate remedy
- Court may direct to carry out promise as per terms of Contract

**SUIT FOR INJUNCTION**

- Party negates terms of contract
- Court → restrains from doing, what he promised not to do.

**QUANTUM MERUIT**

- As much as the party has deserved
- Recompensate for value of work done, where no remuneration fixed
- 2 Condition for application of Doctrine

Original contract discharged

Claim brought by party not in default

- Claim of Quantum Meruit in following cases —

Something done with No intention to do gratuitously

Void Agreement Contract becomes void

One party refuses to perform

Contract Divisible

Contract Indivisible

Pay for part performance enjoyed

- Performed badly but completely
- Deduction for bad work



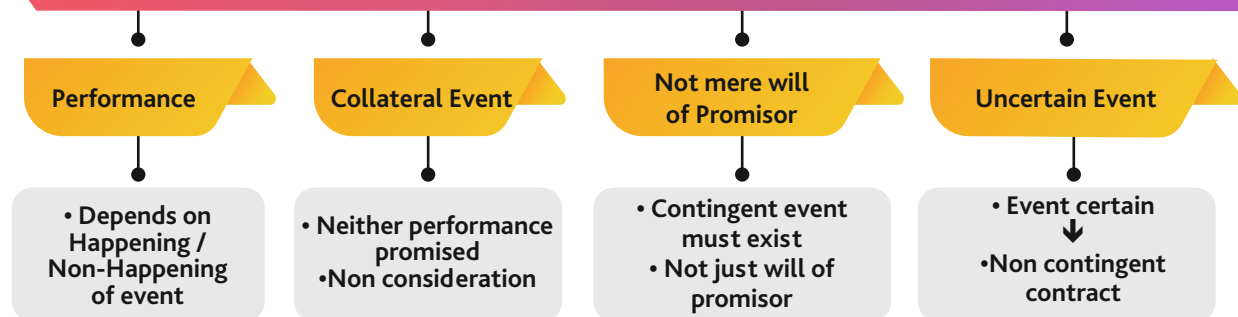
### CONTINGENT & QUASI CONTRACT

#### CONTINGENT CONTRACTS

**SEC 31** Contract to do or not to do something, if some even, collateral to contract does or does not happen  
**Example** Contract of Insurance, Indemnity & Guarantee

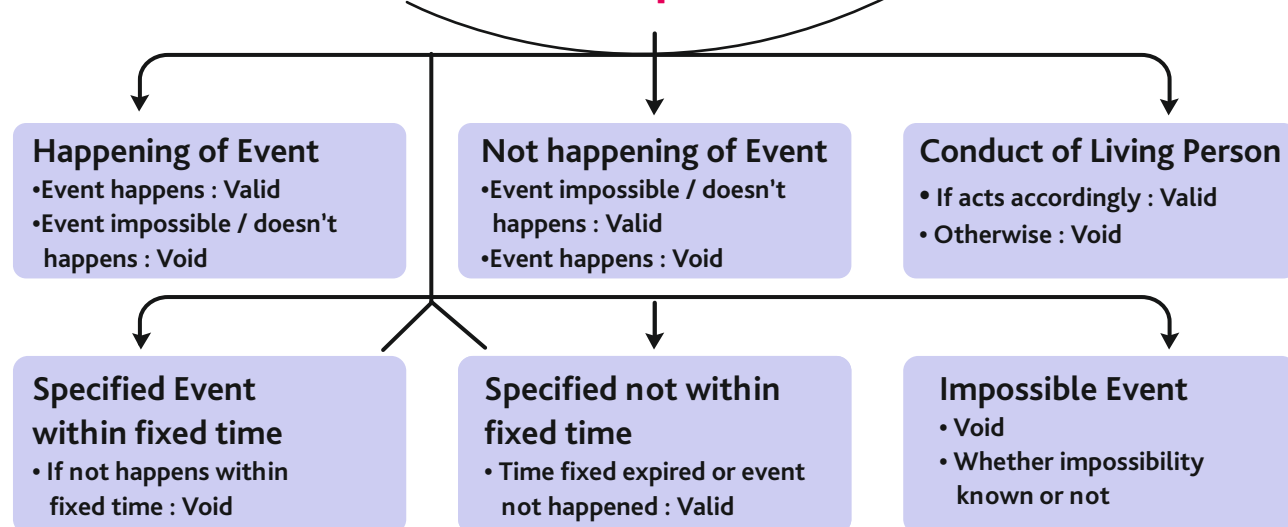
\* Collateral Event (Pollock & Mulla)  
 Even in which  
 • Neither performance promised  
 • Nor consideration for a promise

#### ESSENTIALS OF CONTINGENT CONTRACT

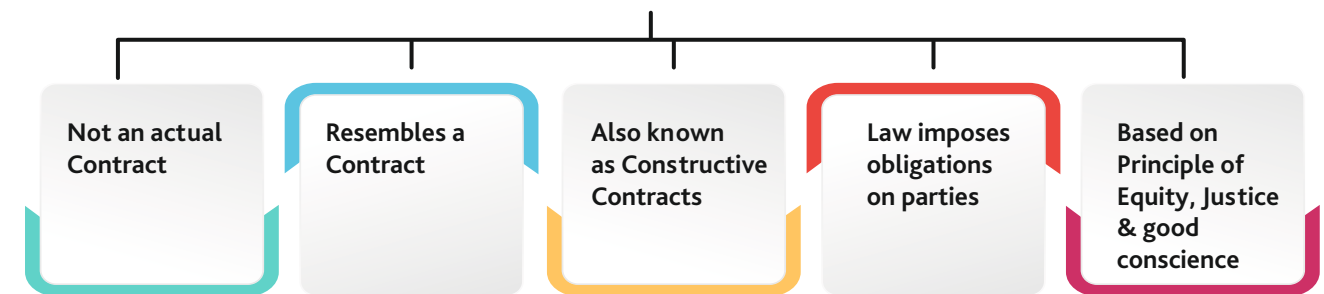


#### RULES RELATING TO ENFORCEMENT [Sec 32 - 36]

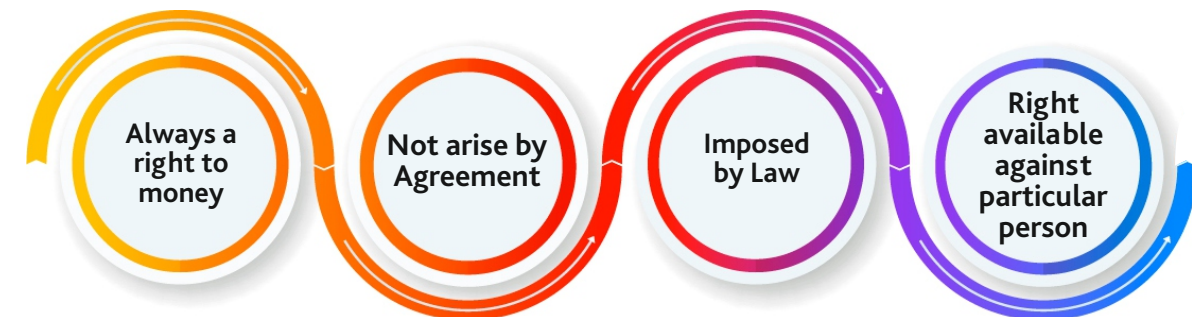
Contract dependent on



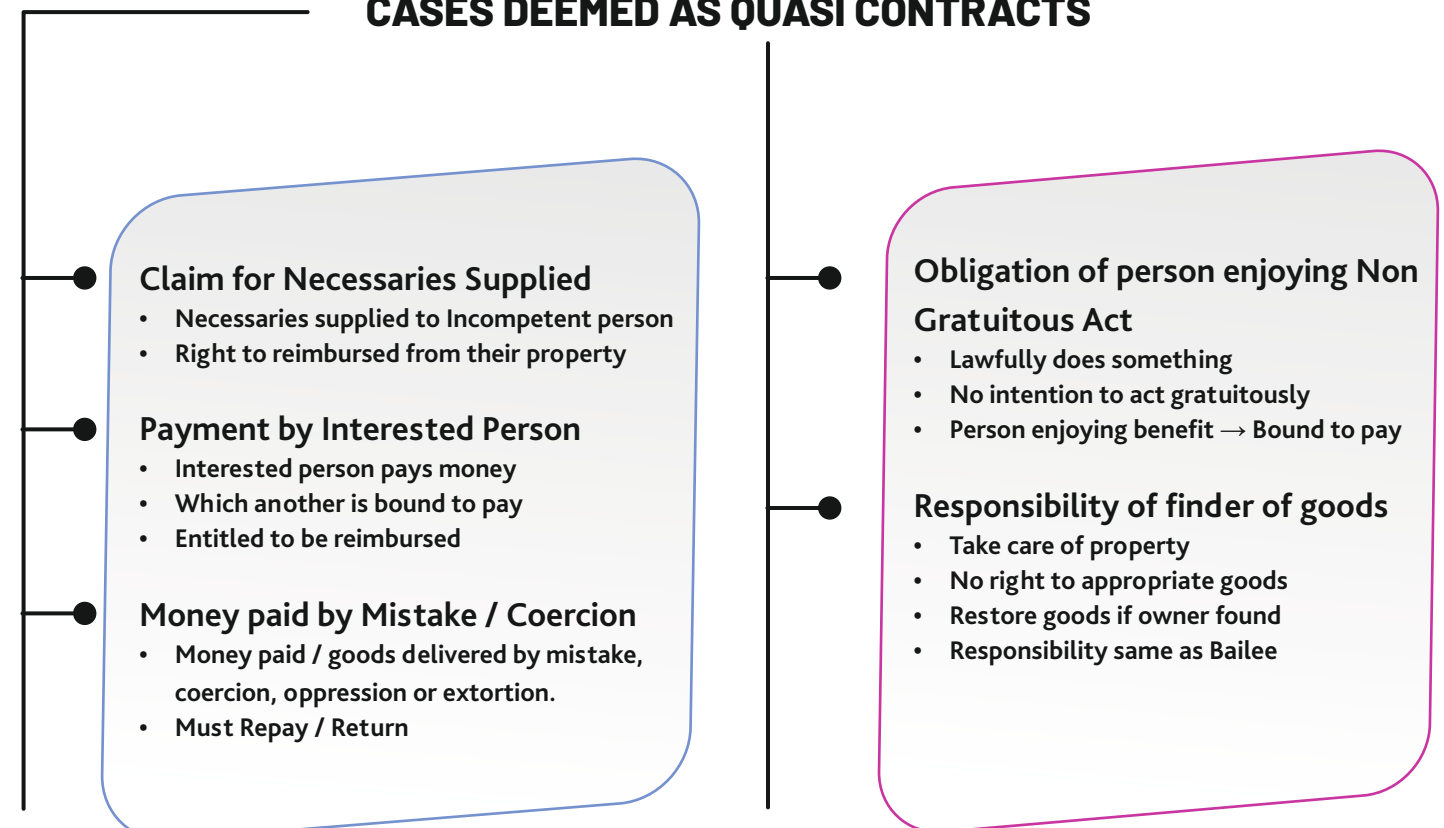
### QUASI CONTRACTS



#### FEATURES



#### CASES DEEMED AS QUASI CONTRACTS



### FORMATION OF THE CONTRACT OF SALE

#### Scope of the act

- Only movable Property
- General provision of Contract Act also applicable
- Expression of Indian Contract Act
- Custom & Usage

- **Buyer & Seller Goods**
  - All movable property other than money & actionable claim
- **Delivery**
  - Voluntary transfer of Possession from one person to another
- **Document of title**
  - Proof of the possession or control of Goods OR
  - Is for authorising or purporting to authorise either by endorsement or delivery
- **Document showing title**
  - Share certificate is document showing title
- **Property (Special vs General)**
  - Ownership or General property
- **Insolvent**—Ceases to pay his debts in ordinary course
- **Price**—Money Consideration for Sale of Goods
- **Quality**—State or Condition

### CONTRACT OF SALE HOW MADE (Section 5)

#### Section 5(1)

- Offer to buy or sale Goods at Price + Acceptance of offer
- Immediate delivery of Goods Or Immediate Payment Or Both
- Delivery or Payment or both in Installment
- Delivery or Payment or both shall be postponed

#### Section 5(2)

- Contract may be made
- In writing
  - By word of mouth
  - Partly in writing & partly by word of mouth
  - Implied from conduct of parties

### GOODS

#### Existing

Goods are in existence at the time of Contract of Sale

#### Future

Goods to be manufacture produced Or acquired after Contract of Sale

#### Contingent

acquisition depends upon contingency

**Specific** Identified and agreed upon at the time of Contract of Sale.

**Ascertained** Identified after Contract of Sale.

**Unascertained** Not specifically identified or agreed upon at the time of Contract of Sale.

### DELIVERY

#### Actual

Goods are physically delivered to buyer

#### Constructive

Effected without change in custody or physical possession

#### Symbolic

Delivery of things in token of transfer of something

#### Contract of Sale

Sale  
↓  
Agreement to sale

#### Sale vs Agreement to Sale

1. Transfer of property
2. Nature of contract
3. Remedies for breach
4. Liabilities of parties
5. Burden of risk
6. Nature of right
7. Right of resale
8. In case of insolvency of seller
9. In case of insolvency of buyer

#### Token Agreement to sale become sale

When time elapses or Condition is fulfilled

#### Sale VS Hire Purchase

1. Time of passing of property
2. Position of party
3. Termination of contract
4. Burden of risk of insolvency of buyer
5. Transfer of title
6. Resale

#### Sale VS Bailment

1. Transfer of property
2. Return of Goods
3. Consideration

Sales and contract for Work and Labour

### subject matter of contract of sale

#### Section 6

Existing Or Future Goods

#### Section 7

Goods Perishing before making contract

#### Section 7

Goods Perishing before sale but after agreement to sale

### PERISHING OF FUTURE GOODS

#### Section 9 & 10

#### Ascertainment of Price

by Contract OR Fixed in a manner agreed OR By the course of dealing between Parties

#### Agreement to sale at Valuation by Third Party

1. Third Party does not OR cannot make such valuation. Contract will be avoided
2. Third Party is prevented by buyer OR seller. Party in fault will file suit.



### CONDITIONS AND WARRANTIES



### CONDITIONS AND WARRANTIES



- Meaning
  - Right in case of Breach
  - Conversion of Stipulation
- Voluntary**
1. Waive Performance of Contract
  2. Elect to Treat Condition as Warranty Compulsory
- Implied Condition**
1. Condition as to title
  2. Sale by sample
  3. Condition as to quality or fitness
  4. Condition as to whole some noss
  5. Condition as to Description
  6. Sale by Sample as well as description
  7. Condition as to merchantability
  8. Implied Warranty
- (1) Warranty as to undisturbed possession  
(2) Warranty as to non existence of circumference  
(3) Discloser of dangerous nature of goods
- Warranty as to quality OR fitness by usage of trade

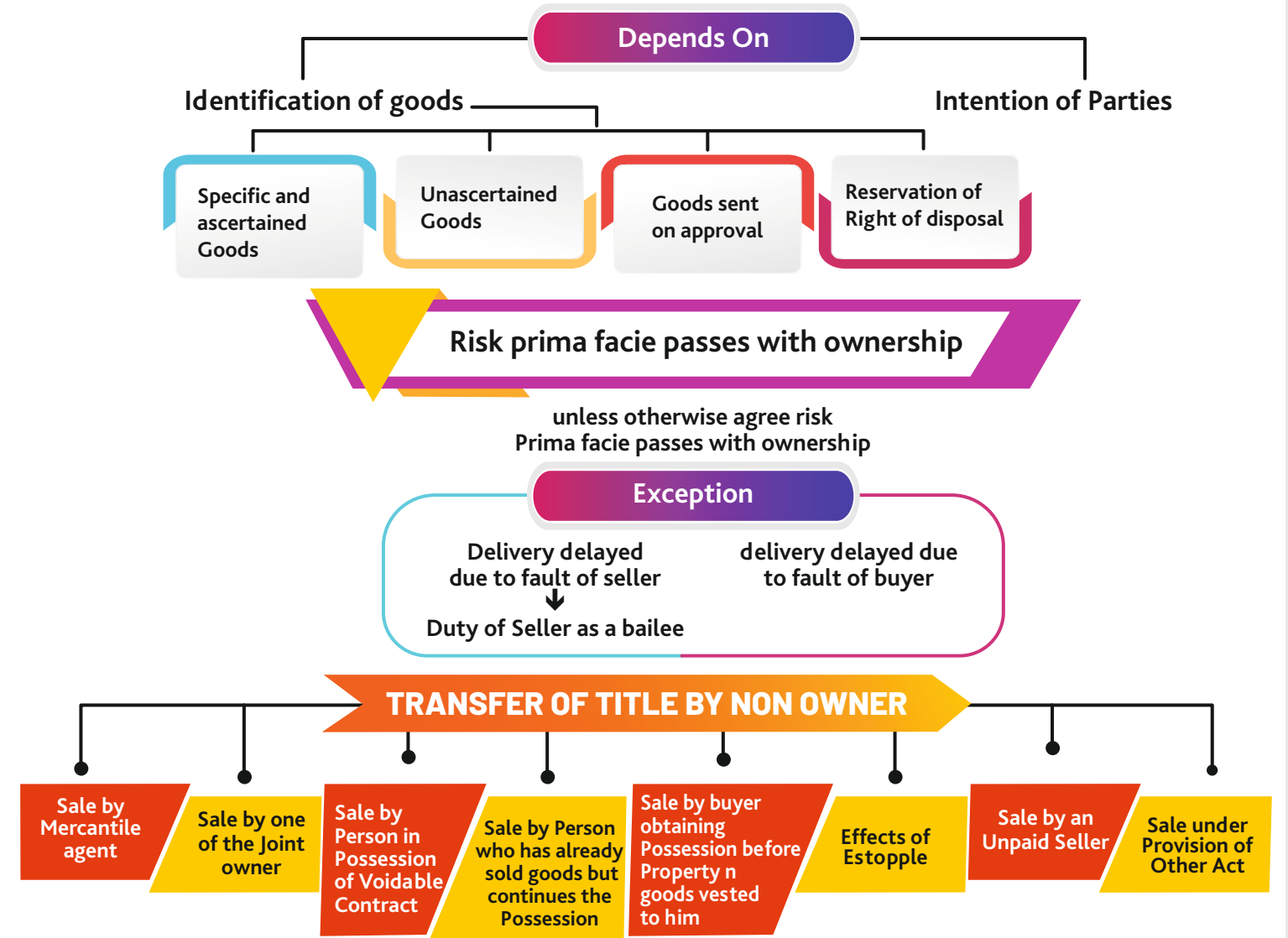
#### CAVEAT Emptor

##### Exceptions —

1. Fitness as to quality OR use
2. Goods Purchased under patent or brand name
3. Goods sold by description
4. Goods of merchandise quality
5. Sale by sample
6. Goods by sample as well as description
7. Trade usage
8. Sellers actively cancels the defects

### TRANSFER OF OWNERSHIP AND DELIVERY OF GOODS

#### TRANSFER OF PROPERTY

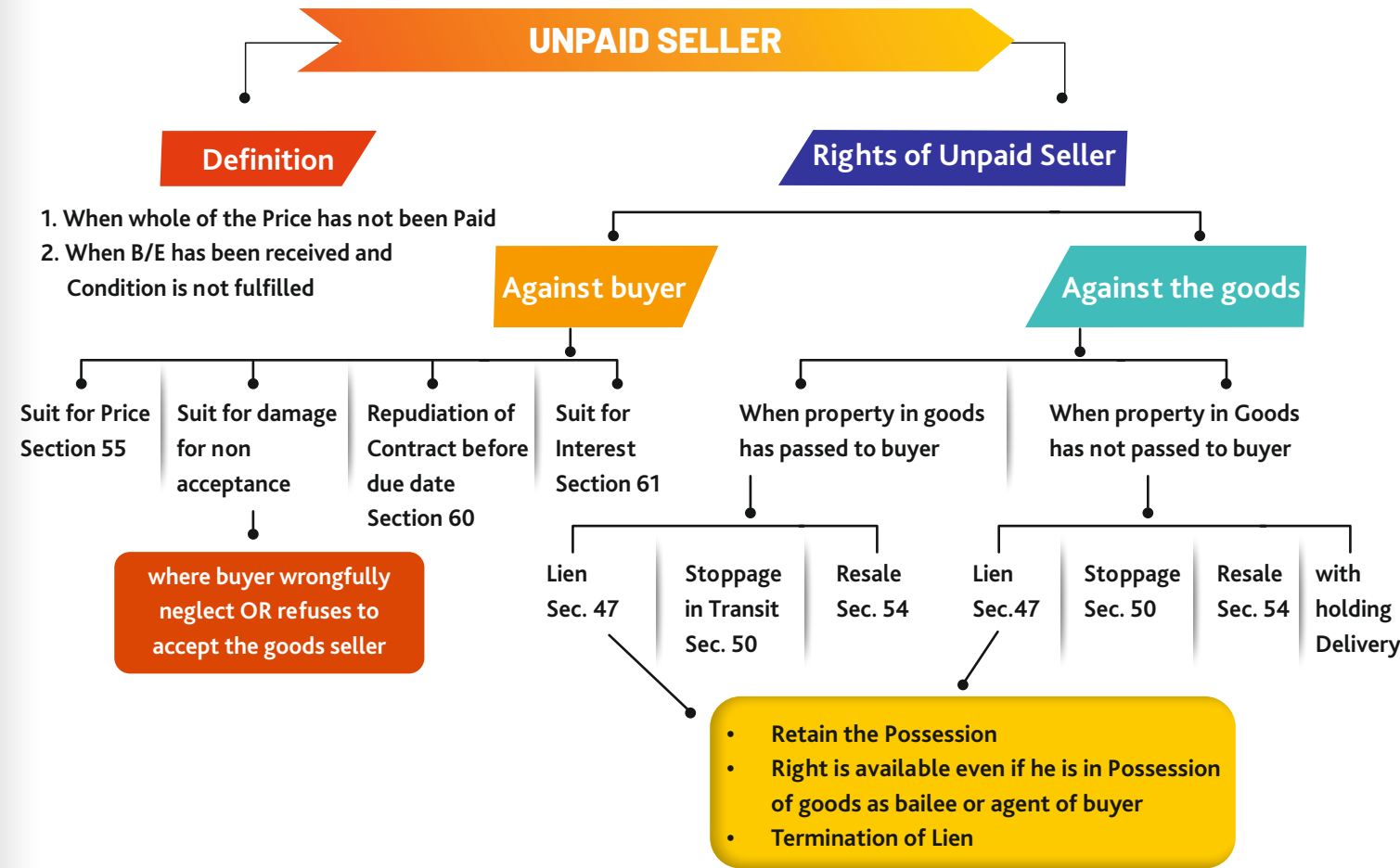


#### (SEC-34-41) RULES REGARDING DELIVERY OF GOODS

1. Part delivery
2. Buyer to apply for delivery
3. Place of delivery
4. Time of delivery
5. Installment delivery
6. Delivery of wrong quantity
7. Expenses of delivery
8. Goods in possession of third party
9. Delivery to carrier
10. Determination during transit
11. Buyer right to examine the goods
12. Installment delivery
13. Delivery in wrong quantity

#### DELIVERY

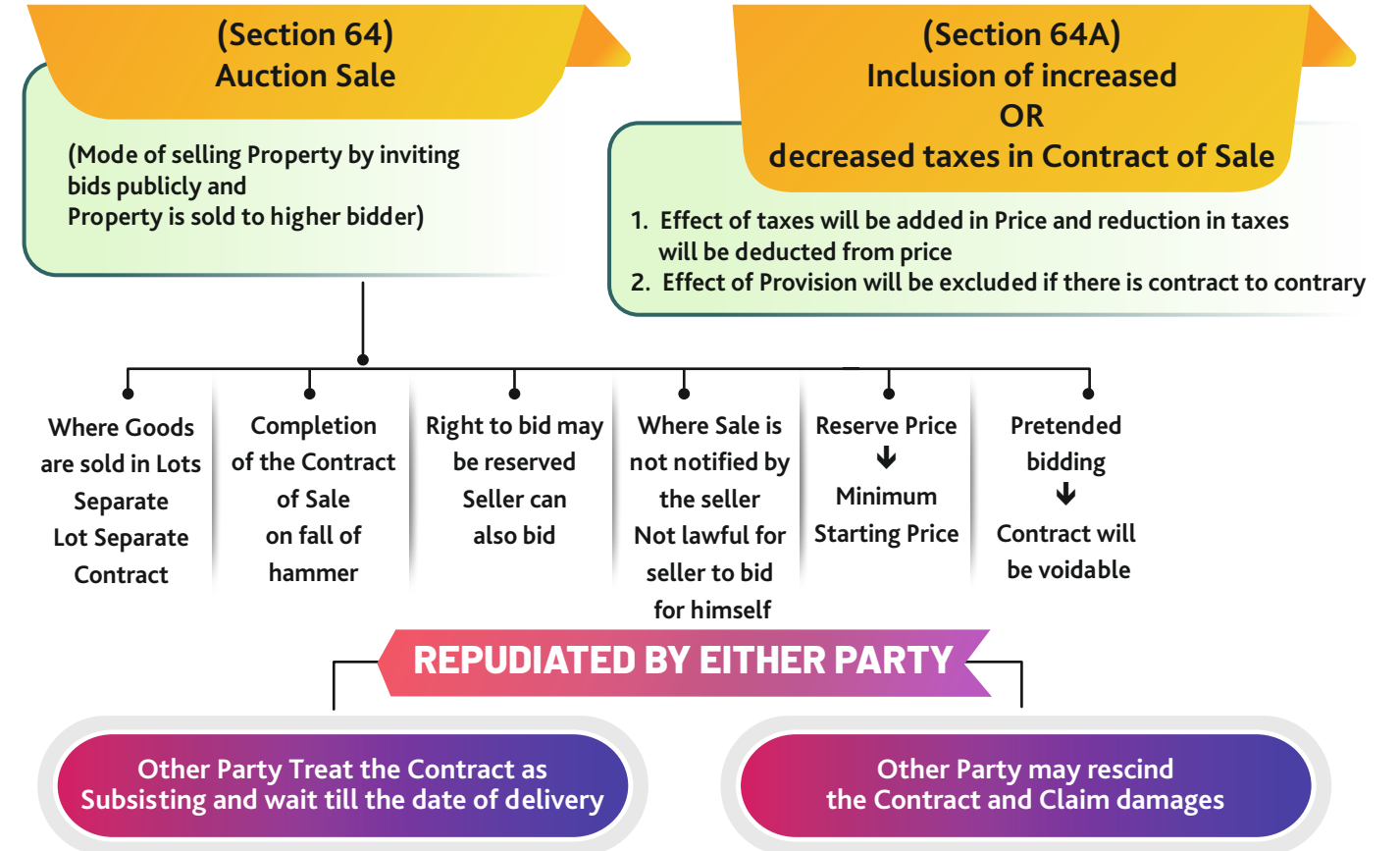




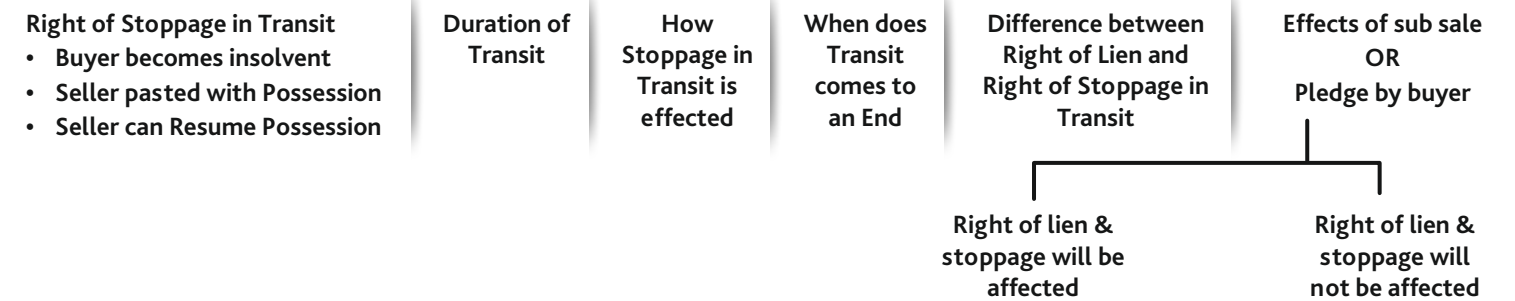
### REMEDIES OF BUYER AGAINST SELLER

Damage for non delivery Section 57	Suit for Specific Performance Section 58	Suit for breach of warranty Section 59	Suit for anticipatory breach Section 60	Suit for Interest
Seller wrongfully refuses to deliver the goods	<ol style="list-style-type: none"> <li>Contract for sale of specific/ ascertained Goods</li> <li>Provision of specific Relief act</li> <li>Damage is not adequate remedy</li> <li>If goods are of special nature OR unique</li> </ol>	buyer can not reject the goods due to Breach of Warranty		recover interest when Interest is recoverable as per any Law

### OTHER PROVISIONS



### STOPPAGE IN TRANSIT



### RIGHT OF RESALE BY SELLER

No Need to inform buyer when goods are of Perishable nature

Need to inform buyer other goods

(if notice is not given to buyer)  
Resale Price > Contract Price difference cannot be retained  
Resale Price < Contract Price difference cannot be Recovered

(if notice is given to buyer)  
Resale Price > Contract Price difference will be retained  
Resale Price < Contract Price difference will be Recovered



# THE INDIAN PARTNERSHIP ACT, 1932

## UNIT 1

**Partnership Firm** Relation between Partners  
Partners who have entered into Partnership are collectively called Firm  
**Firm Name** Name under which their business is carried on

### Association of 2 OR More Persons

- Firm and minor cannot be Partner
- Limit 50

### Agreement

- Must be the result of an agreement
- May be oral or written
- May be express or implied

### Business

includes Trade occupation and Profession motive (acquisition of Gain)

### Sharing of Profit

- Sharing of profit is essential
- Sharing of loss is not essential

### Carried on by all OR Any of them acting for all

- Each partner is principal as well agent
- He can bind other Partner by his act (agent)
- He is bound by the acts of other partner (Principal)

### TEST OF PARTNERSHIP

#### Agreement

Relation of Partnership arises from contract not from status

#### Sharing of Profit

Sharing of Profit is Prima facie evidence not conclusive evidence

#### Mutual Agency

- Existence mutual agency is cardinal principal's law
- Each Partner carrying on business is Principal as well as agent

### TYPE OF PARTNERS

#### Active or Ostensible Partner

Who become Partner by agreement & Who actively participate in the conduct of business

#### Sleeping Partner or Dormant Partner

Who is Partner by agreement & who does not actively take part in the conduct of business

#### Nominal Partner

- Lends his name
- Without having any real interest
- Not entitled to share any profit
- Does not take part in conduct of business
- Liable to third party

#### Partner in Profit Only

- Entitled to Share Profit only
- Not liable for losses
- Liable to third party for All acts of profit only

**Incoming Partner**— admitted with the consent of All Partners not liable for acts done before admission.

**Outgoing Partner**— • who leaves the firm • Liable for All acts till Public notice is given

**Partner by holding out only** — Partner by estoppel

When a Person represent himself

OR

Knowingly permits himself

to be represented himself as Partner in a firm

he is Liable like a Partner in a firm

### VARIOUS KINDS OF PARTNERSHIP

#### WITH REGARD TO DURATION

##### Partnership at Will

- Not fixed period agreed upon & No provision as to determination of Partnership
- Partner is for fixed term Continued after Expiry of term
- Can be dissolved any time by giving notice in Writing

##### Partnership for Fixed Period

Contract for duration of Partnership

#### WITH REGARD TO EXTENT OF BUSINESS

##### General Partnership

Partnership constituted with respect to business in General

##### Particular Partnership

- Particular adventure or undertaking
- Liability extends to Particular venture or undertaking

### PARTNERSHIP DEED

A document in writing containing various terms and conditions as to the relationship of Partner to each other is called Partnership deed.

### CLAUSES

#### SPECIFIC POINTS

- Admission & retirement of Partner
- Settlement of A/c on Dissolution
- Exclusion of Partners

#### GENERAL POINTS

- Name of Partners & Firm
- Place of Business & Date
- Nature of Business & Duration
- Capital
- IOD, IOC & Interest on Loan
- Salary & Commission
- P S R

#### Partnership VS HUF

- Legal status
- Agency
- Distribution of profit
- Extent of liability
- Property
- Transfer of Shares
- Management
- Registration
- Winding up
- No. of membership
- Duration of Existence

#### Partnership VS Club

- Definition
- relationship
- Intrest in Property
- Dissolution

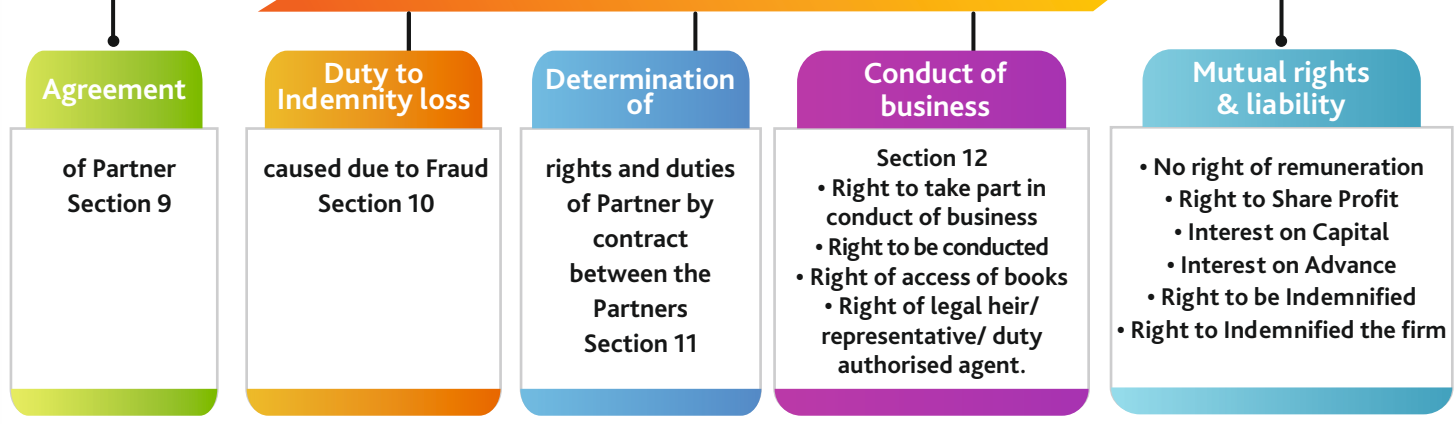
#### Partnership VS HUF

- Mode of creation
- Death of member
- Management
- Authority to bind
- Liability
- Calling for accounts on clauses
- Governing Law
- Minors capacity
- Continuity
- Number of members
- Share in business

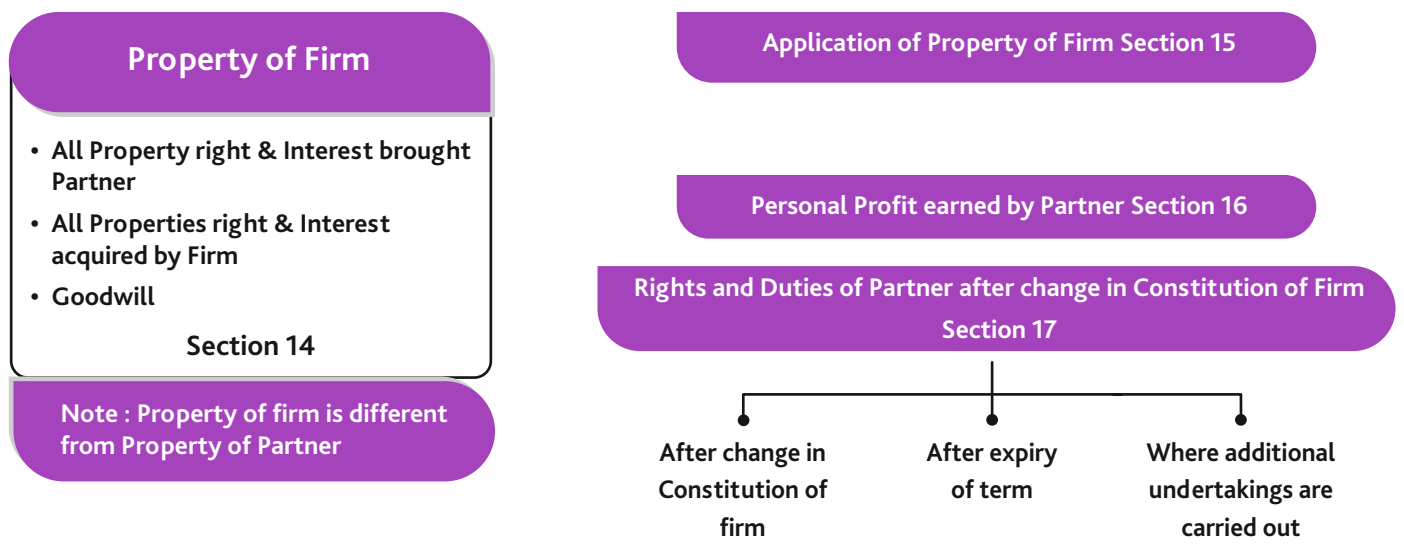
#### Partnership VS Co ownership

#### Partnership VS Association

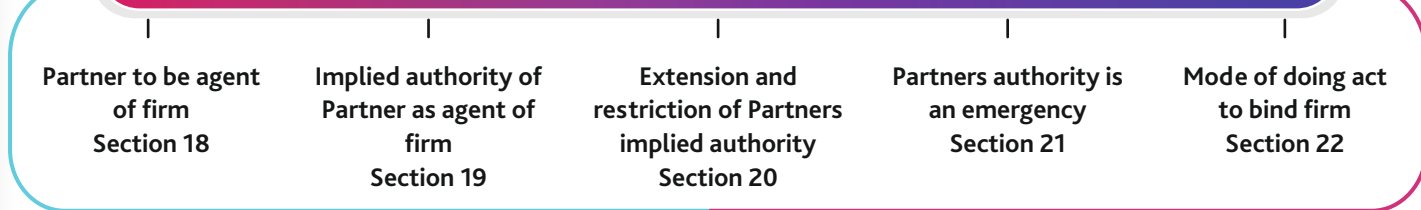
### RELATION OF PARTNER TO ONE ANOTHER



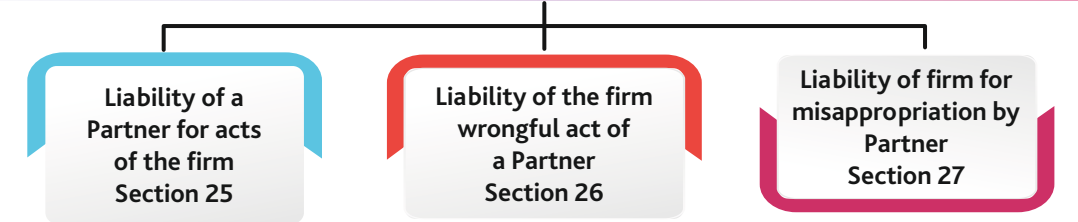
### PARTNERSHIP PROPERTY



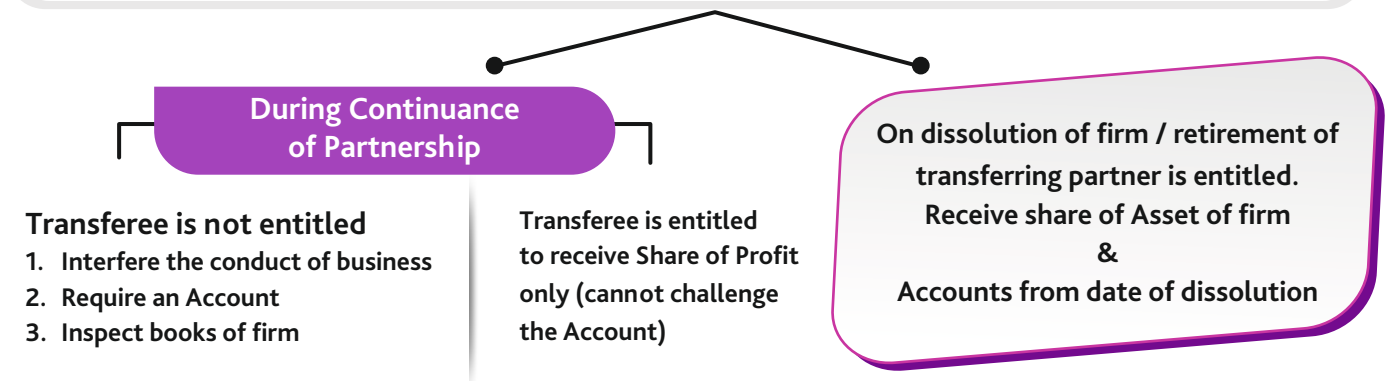
### RELATION OF PARTNER TO THIRD PARTY



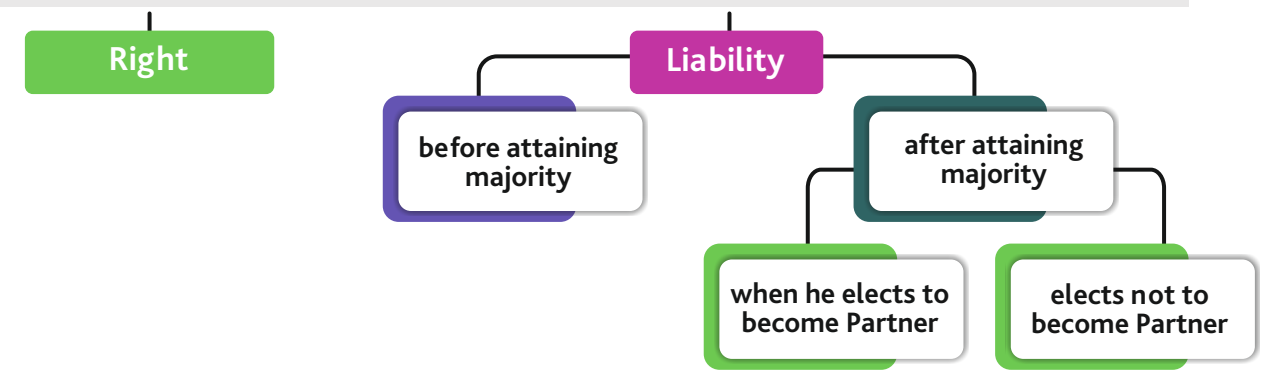
### LIABILITY TO THIRD PARTY



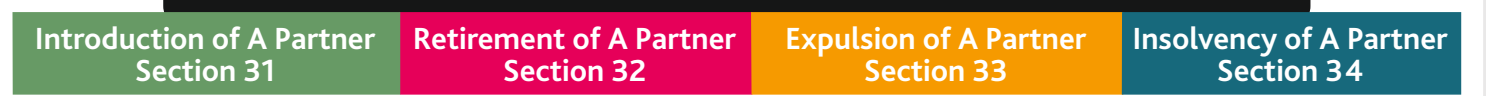
### RIGHT OF A TRANSFEREE OF A PARTNER'S INTEREST (Section 29)



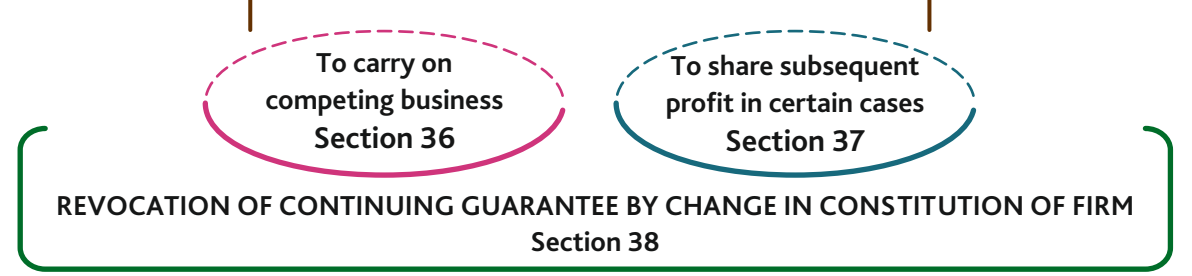
### MINOR ADMITTED TO THE BENEFIT OF PARTNERSHIP (Section 30)



### LEGAL CONSEQUENCES OF PARTNER COMING IN & GOING OUT



### RIGHTS OF OUTGOING PARTNERS





### DISSOLUTION OF FIRM

#### Application for Registration of Firm Section 58

- Statement in prescribed form and accompanied by prescribed fees stating certain details.
- Statement shall be signed by All the partners or by their agent specifically authorised in this behalf also same should be verified
- Certain words expression or implying the sanction OR approval or patronage Govt. are, not allowed.

#### Registration Section 59

Registrar shall record the entry of the statement in Register

#### Late Registration on Payment of Penalty Section 59A – 1

Late Registration on Payment of Penalty

### CONSEQUENCE OF NON-REGISTRATION (Section 69)

Disabilities

Exceptions

### CONSEQUENCE OF NON-REGISTRATION (Section 69)

Continuation of Business

Wending up

Order of Court

Scope

Final Closure of books

### DISSOLUTION OF FIRM

#### Without the Court Order (Section 40 to 43)

1. Mutual Agreement (Section 40)
2. Compulsory Dissolution (Section 41)
3. On happening of certain event by notice (Section 42)
4. By Notice (Partnership at Will) (Section 43)

#### By Order of Court (Section 44)

1. Insanity
2. Misconduct
3. Permanent Capacity
4. Persistent breach of Agreement
5. Transfer of Interest
6. Continuous Loss
7. Just and Equitable Ground

### RIGHT AND LIABILITIES OF PARTNERS AFTER DISSOLUTION

#### Section 45

Liabilities for Acts of Partner done after dissolution

#### Section 46

Right of Partner to have business wound up

#### Section 47

Continuing authority of Partner for the purpose of winding up

#### Section 48

Mode of settlement of Partnership Account

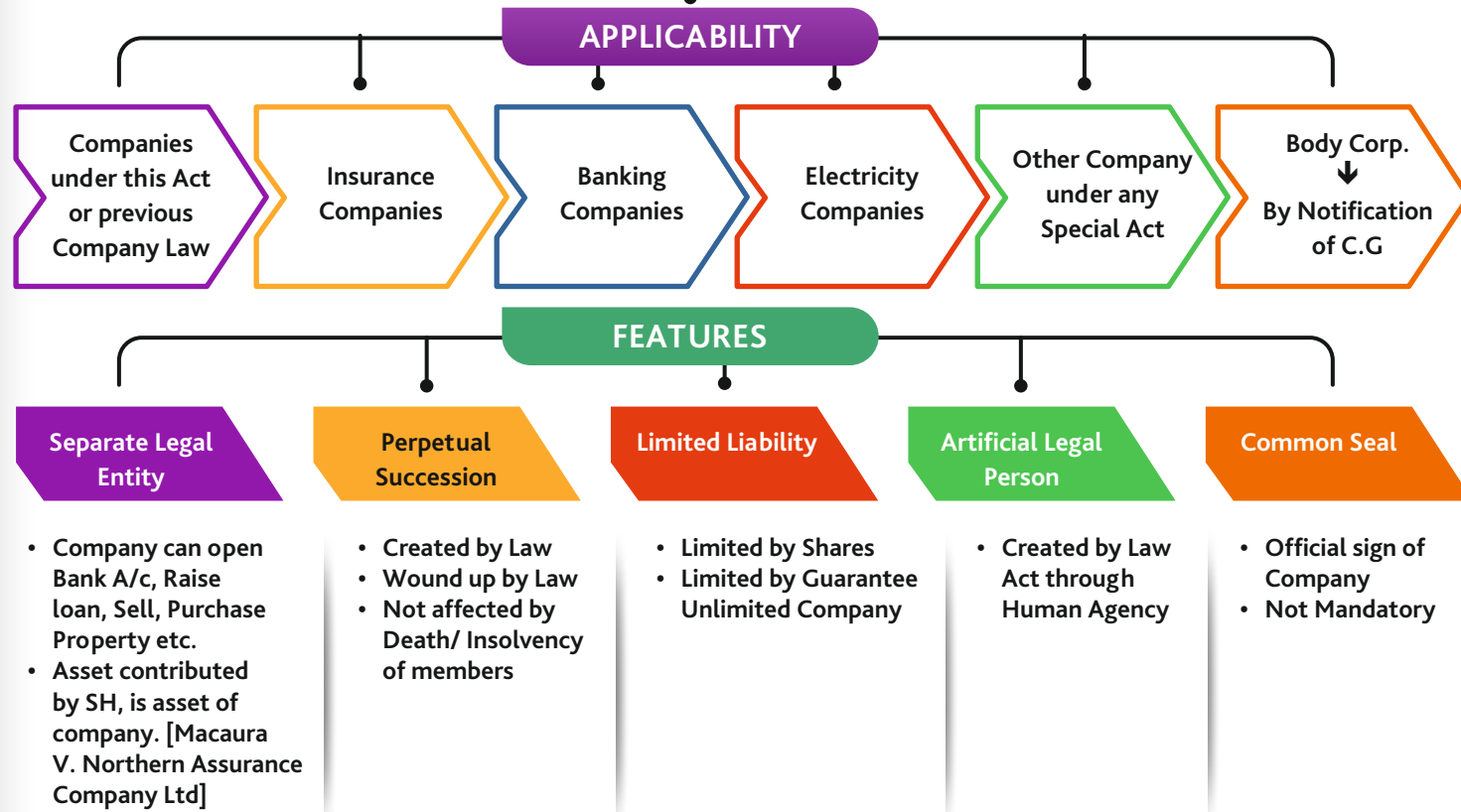
#### Section 49

Payment of firm debt and of separate debts

# THE COMPANIES ACT, 2013

## THE COMPANIES ACT, 2013

Sec(20) : Company Incorporated under this act or under any previous company law.



### CORPORATE VEIL THEORY

- Members Shielded from liability connected to Company's Action
- Company identified separately from its members [Salomon V. Salomon & Co. Ltd.]

### LIFTING OF CORPORATE VEIL

- Courts ignore company & concerns directly with its members
- Disregarding corporate entity & paying regard to realities behind the legal facade.

### CASES WHERE COMPANY LAW DISREGARD CONCEPT OF "SEPERATE LEGAL ENTITY"

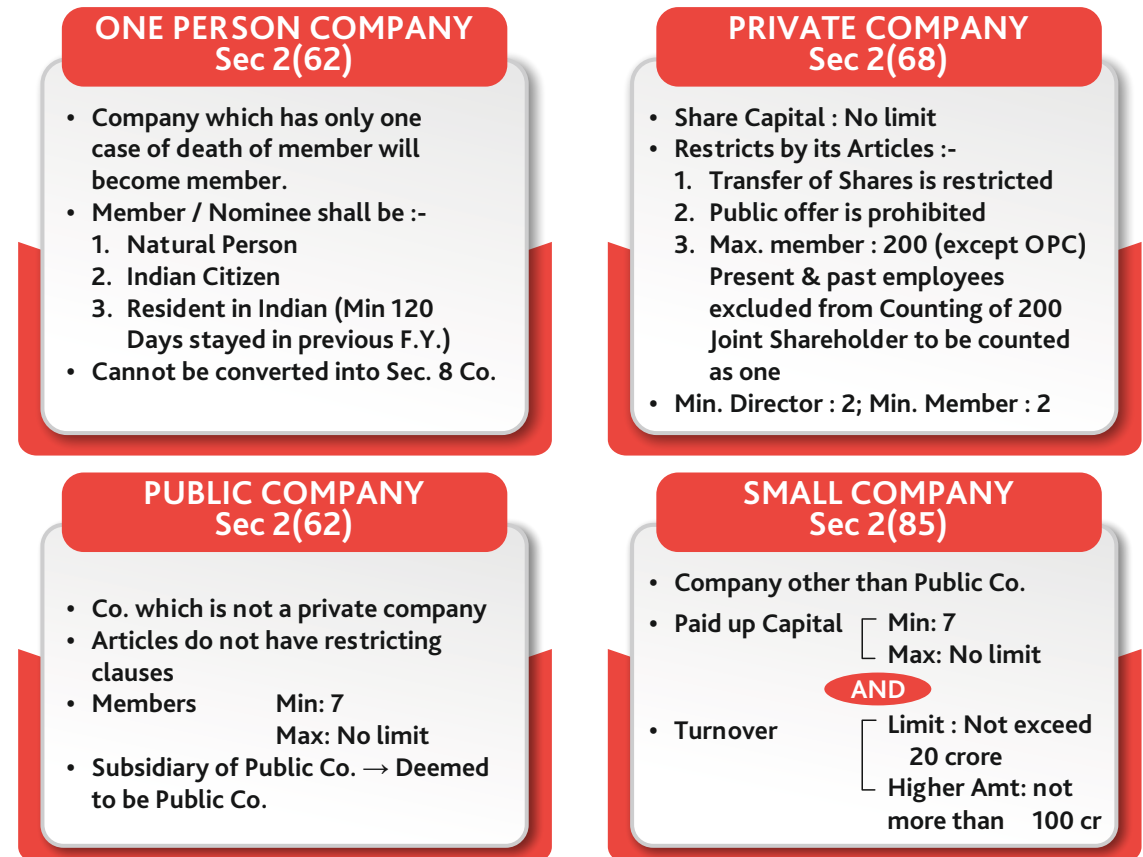
- Determine Character of Company Daimler Co. Ltd V. Continental Tyre & Rubber Co
- To Protect Revenue / Tax Dinshaw Maneckjee Petit
- To Avoid Legal Obligation Workmen of Associates Rubber Industry V. Associates Rubber Ind. Ltd.
- Formation of Subsidiary to act as agents Merchandise Transport Ltd. V. British Transport Commission
- Company formed for Fraud/ Improper Conduct Gilford Motor Company Ltd. V. Horne

## CLASSES OF COMPANIES

### On the basis of Liability

- Limited by Shares**
  - Liability limited to nominal value of shares held
- Limited by Guarantee**
  - Liable to extent of amount guaranteed in MOA.
  - At the time of Liquidation
- Unlimited Company**
  - Liability unlimited
  - Contribute in event of winding up

### ON THE BASIS OF MEMBERS



### ON THE BASIS OF ACCESS TO CAPITAL

- LISTED COMPANY**
  - SEC 2 (52)
  - Company which has any of its securities listed on any recognised Stock Exchange
  - If SEBI prescribes : - Co. not t be considered as Listed Company
- UNLISTED COMPANY**
  - Company other than listed company



## ON THE BASIS OF CONTROL

### HOLDING COMPANY

- Sec 2 (46)
- A company of whose other companies are subsidiary or Associate companies

### ASSOCIATE COMPANY

- Sec 2 (6)
- A company in which other company has "Significant Influence" (Atleast 20% of total voting power / control)
- Includes Joint venture but not a Subsidiary Co.

### SUBSIDIARY COMPANY

- Sec 2 (87)
- A company in which Holding Co. :-
  1. Controls composition of B.O.D.
  - OR
  2. Controls more than half of total voting Power
 on its own or together with its subsidiary
- Deemed to be Subsidiary Co. :- If control is of another Subsidiary Co. of the Holding Co.

## OTHER COMPANIES

### Government Company

- Sec 2 (45)
- Company in which atleast 51% of paid up Share Capital held by :-
  1. CG
  2. SG
  3. CG + SG

### Foreign Company

- Sec 2 (42)
- Company incorporated outside India
- Has place of business in India
- Through itself or agent, physically or electronically.

### Nidhi Company

- Sec 406 (1)
- Company incorporated to Cultivate habit of savings amongst its members

### Dormant Company

- Company formed for future project or to hold IPR / Asset
- No Significant Accounting Trans.
- Inactive Company :-
  1. Not carrying business
  2. Not Significant Accounting Tr.
  3. Not field financial statement/ Annual Return

During last 2 F.Y.

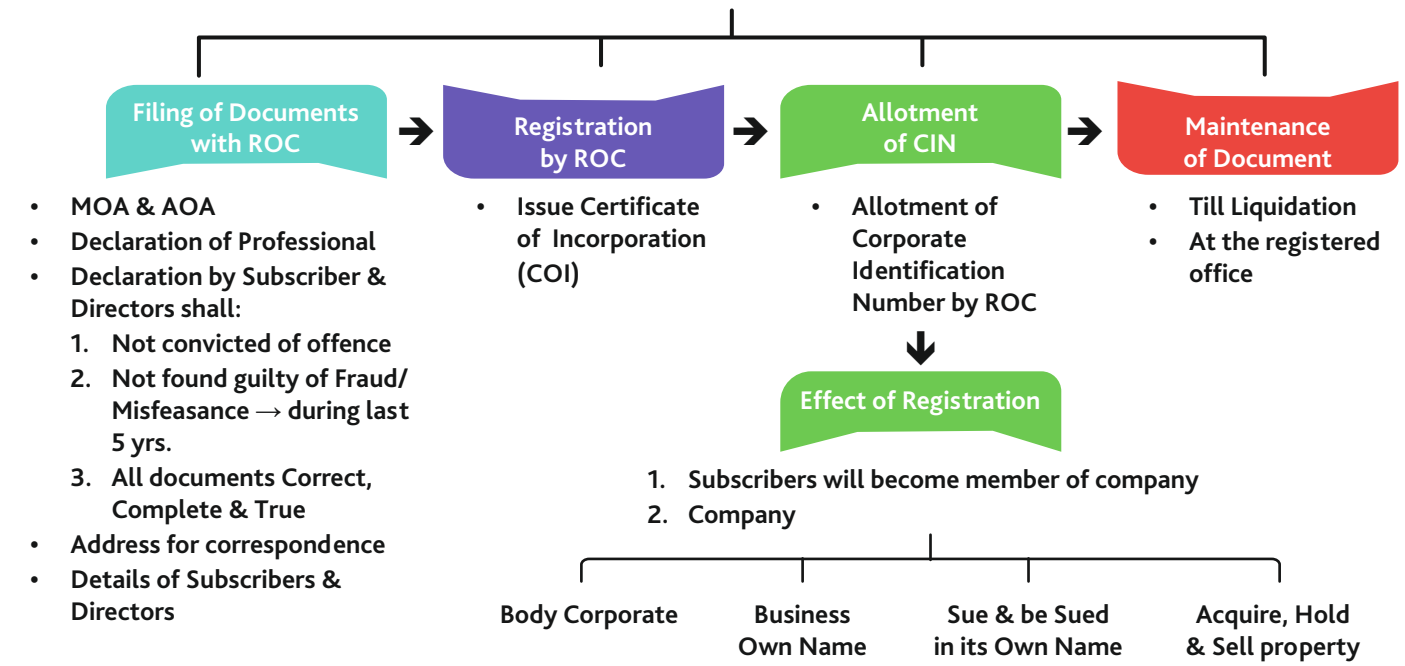
### Section 8 Company

- To promote Art, Science, Commerce, Sports, Religion, Environment etc.
- Profit utilized for promotion of objects
- Dividend distribution prohibited
- Need not use word 'Limited' or 'Private Limited'

### Public Financial Institution

- LIC
- UTI
- IDFC Ltd.
- Notified by CG in consultation with RBI
- Established under Central State Act
- Atleast 51% paid up capital held by CG / SG / CG +SG

## INCORPORATION OF COMPANIES



## PENALTY FOR FALSE DISCLOSURE

**Company Not been Incorporated**

- Person furnishing false information
- Liable for Fraud u/s 447

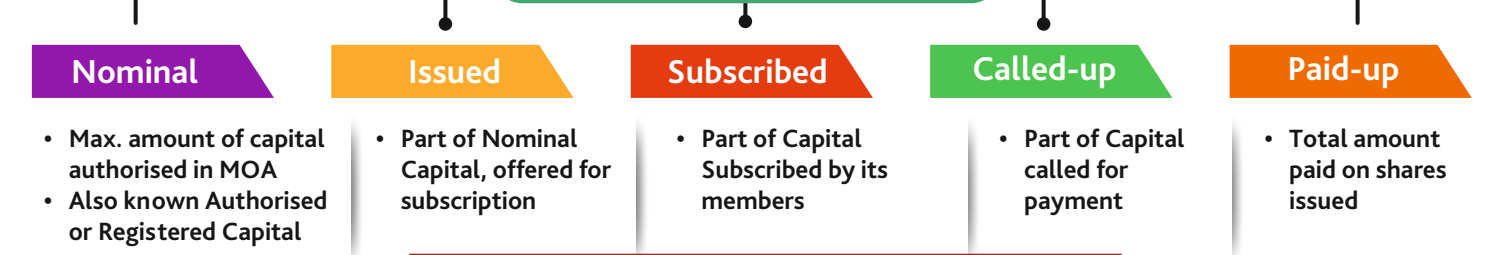
**Company has been Incorporated**

- Promoter / First Directors / Person making Declaration
- Liable for Fraud u/s 447

## TRIBUNAL IF SATISFIED

- Pass order for change in MOA / AOA
- Member's Liability unlimited
- Removal of Name from Register of Companies
- Order for winding up
- Other orders

## CLASSIFICATION OF CAPITAL



## KINDS OF CAPITAL

### Equity Share Capital

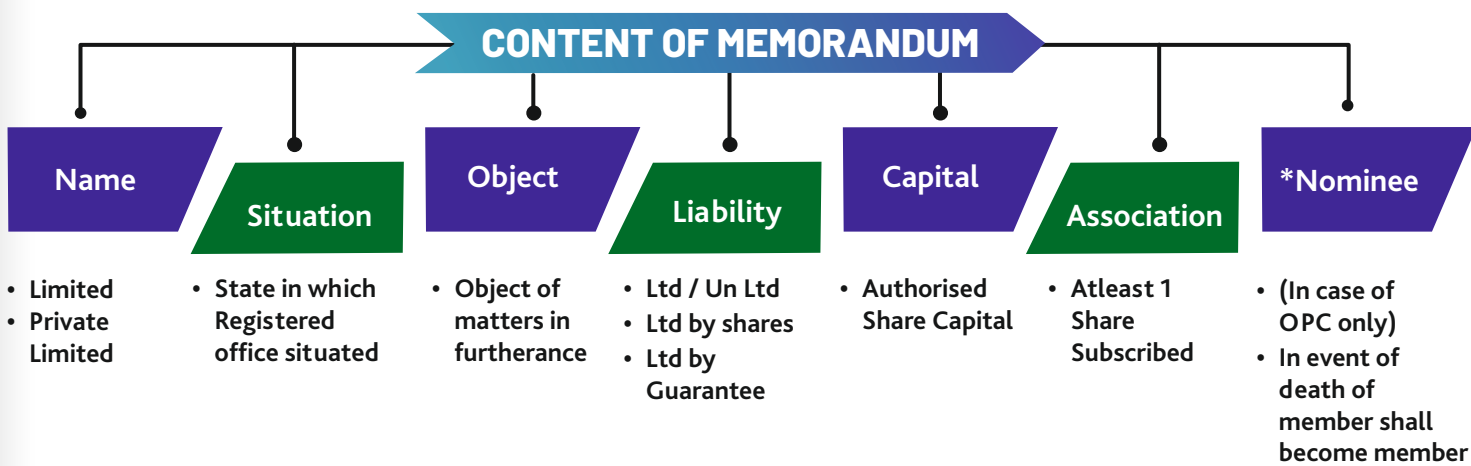
Share Capital which is not Preference Share Capital

### Preference Share Capital

- Part of Issued Share Capital which carries preferential right to :-
  1. Payment of Dividend
  2. Repayment at winding up

# THE COMPANIES ACT, 2013

- Chartered document, defines scope of powers of Company
- Contains object for which company is formed, Beyond which actions cannot go.
- Sec 399 :Memorandum is public document, person contracting with company presumed to have knowledge of it
- Any contract beyond the power of memorandum ULTRA VIRES & VOID
- Form of MOA : Table A, B, C, D, E
- Memorandum: Printed, Paragraphed, Numbered, Signed in presence of 1 witness, Description of Subscribers.
- MOA must comply with provisions of Companies Act, 2013.



**MEMORANDUM OF ASSOCIATION**

- Rules & Regulations framed to manage Internal affairs.
- Forms of Articles : Table F,G, H, I & J
- Model Articles : May adopt all or any regulations
- Entrenchment Provision :
  1. Amendment, if more restrictive provisions are inserted
  2. At the time of Incorporation or by Amendment (Special Resolution)

BASIS	MOA	V/S	AOA
Objectives	Defines & delimits the objectives of Company		Rules & Regulation for management of Company
Relationship	Company and outside world		Company and its members
Alteration	Only under certain circumstances with permission of RD/ NCLT		By passing Special Resolution
Ultra Vires	Acts done beyond MOA – void and ultravires, cannot be ratified		Acts beyond AOA, Ratified by Special Resolution of Shareholder

## DOCTRINE OF ULTRA VIRES

- Act done in excess of legal powers
  - Acts done beyond the power of Director and Company →void & not binding on Company
  - Company can neither sue nor can it sue on it
  - MOA public document (open for inspection)
  - Person dealing with Company cannot enforce against Company, if ultra vires.
  - Acts ultra vires the Director →SH can ratify
  - Acts ultra vires the Articles → Articles altered
  - Acts ultra vires the Company →VOID, SH cannot ratify
  - [Ashbury Railway Carriage & Iron Company Ltd V. Riche]
- Protects Company

## DOCTRINE OF CONSTRUCTIVE NOTICE

- "Right of Inspection to all."
  - Any person can inspect by electronic means, make record or get copies.
  - Duty of person dealing with company:
    1. To inspect documents
    2. Ensure, Contract is in conformity with provisions.
  - Person reads the document or not → Presumed to have knowledge of contents.
  - If Contracts, beyond power of Company → Cannot acquire any rights against Company
- Protects outsiders

## DOCTRINE OF INDOOR MANAGEMENT

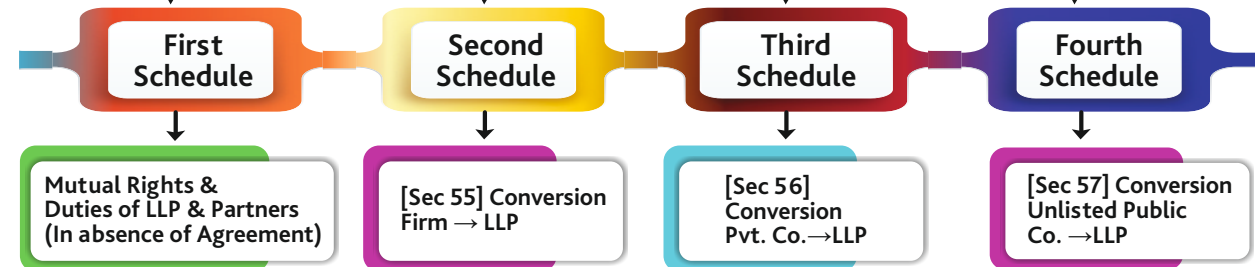
- Exception to doctrine of Constructive Notice
- Outsiders not deemed to have notice of internal affairs of Company.
- Popularly known as Turquand Rule [Royal British Bank V. Turquand]
- Indoor management is internal problem of Company, Outsiders not deemed to have knowledge of internal Affairs of Company.

## EXCEPTIONS TO DOCTRINE OF INDOOR MANAGEMENT

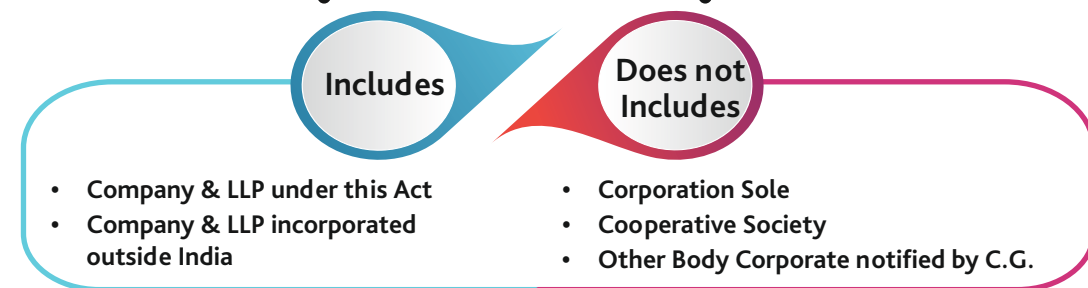
1 Actual Constructive Knowledge of Irregularity	2 Suspicion of Irregularity	3 Forgery
<ul style="list-style-type: none"> <li>• [Howard V. Patent Ivory Manufacturing Co.]</li> <li>• Omitting to do something that is necessary.</li> <li>• Cannot be protected under Doctrine of Indoor Management</li> </ul>	<ul style="list-style-type: none"> <li>• [Anand Biharilal V. Dinshaw &amp; Co.]</li> <li>• Person dealing with Company suspicious about circumstances</li> <li>• Still doesn't enquire, then cannot rely on Doctrine of Indoor Management</li> </ul>	<ul style="list-style-type: none"> <li>• [Ruben V. Great Fingall Consolidated]</li> <li>• Doctrine of Indoor Management not applicable on Forgery.</li> <li>• Forgery is considered Null &amp; Void</li> </ul>



## Administration : Ministry of Corporate Affairs and Registrar of Companies (ROC)



### BODY CORPORATE Sec 2 (d)



### SMALL LLP Sec 2 (ta)



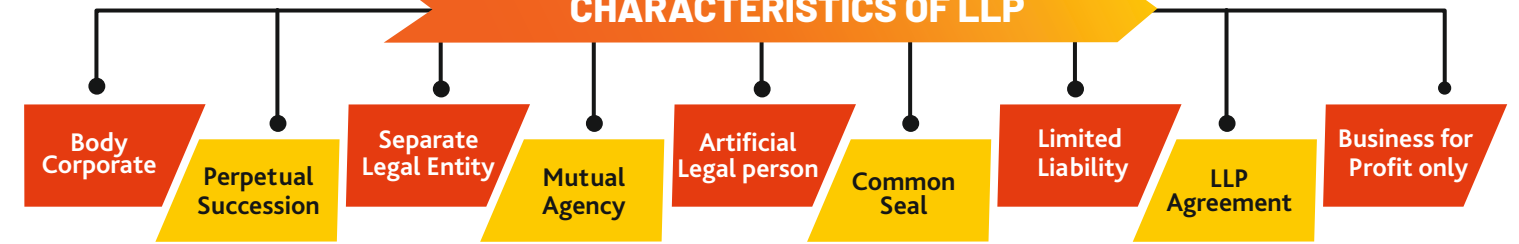
### LLP Sec 5



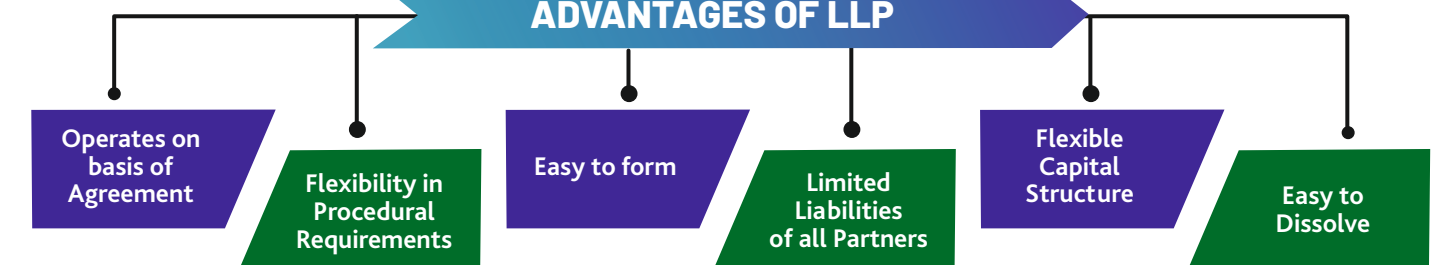
### PARTNER



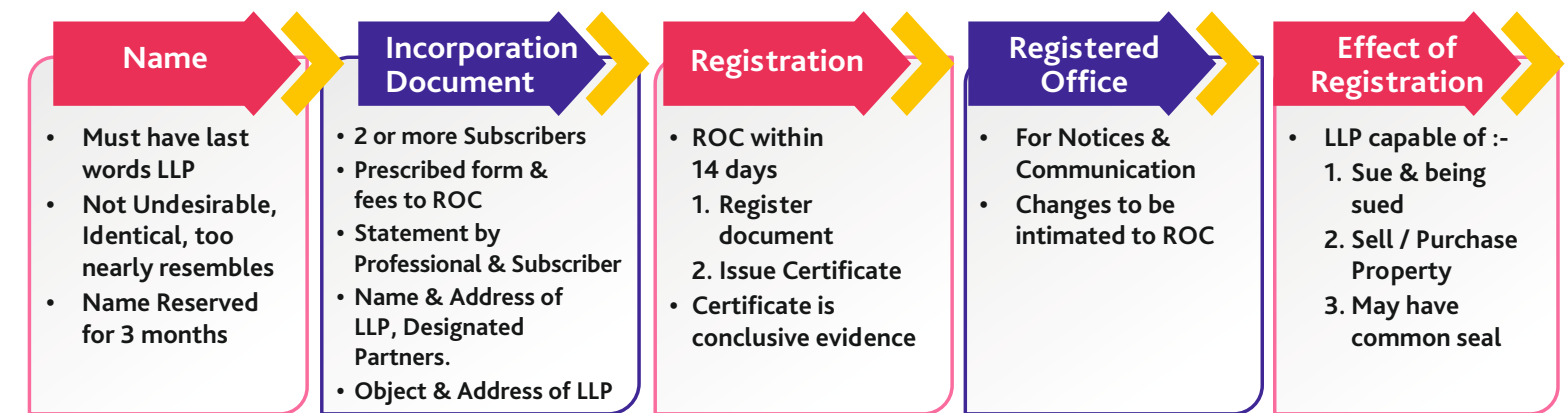
### CHARACTERISTICS OF LLP



### ADVANTAGES OF LLP

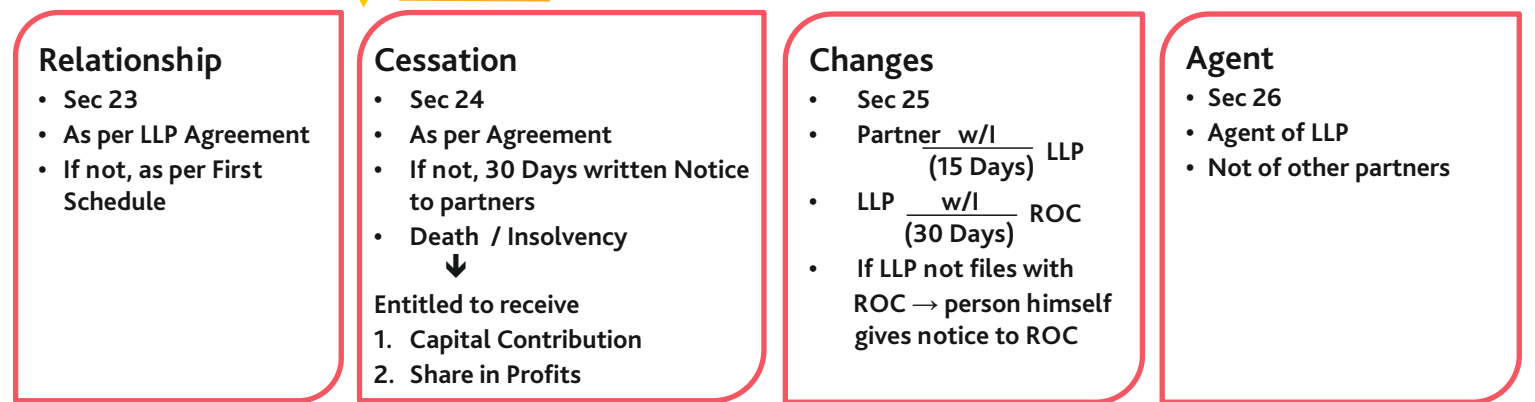


### INCORPORATION OF LLP



\* CG → Order for change of Name → to be change within 3 months, If not changed → CG → Allot new name

### PARTNERS & THEIR RELATIONS



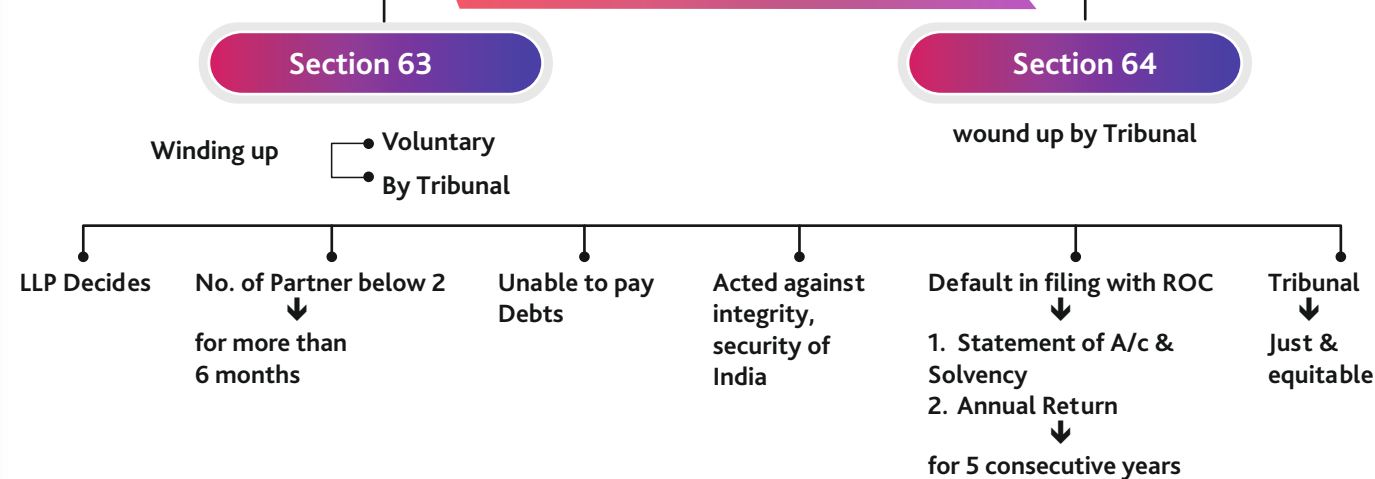
## LIABILITY OF LLP & PARTNER

LLP Liability	Partner's Liability	Holding Out	Fraud	Whistle Blowing
<ul style="list-style-type: none"> <li>• Sec 27</li> <li>• LLP not liable if:                             <ol style="list-style-type: none"> <li>1. Partner had no authority</li> <li>2. Person dealing knows the fact</li> </ol> </li> <li>• LLP liable if:                             <ol style="list-style-type: none"> <li>1. Within authority</li> <li>2. in ordinary course of Business</li> </ol> </li> <li>• Liabilities met out of Property of LLP</li> </ul>	<ul style="list-style-type: none"> <li>• Sec 28</li> <li>• Partners not personally liable except:-                             <ol style="list-style-type: none"> <li>1. own wrongful act or omission</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Sec 29</li> <li>• Represents himself</li> <li>• Permits to be represented as partner</li> <li>• Liable for credit receive on such representation</li> </ul>	<ul style="list-style-type: none"> <li>• Sec 30</li> <li>• If intention to defraud</li> <li>• Unlimited liability of LLP &amp; Partners</li> <li>• If act without Knowledge of LLP, only partner liable</li> </ul>	<ul style="list-style-type: none"> <li>• Sec 31</li> <li>• Partner, employee provides useful information for conviction of LLP or its partners                             <p style="text-align: center;">↓</p>                             court may reduce, waive penalty                         </li> </ul>

## FINANCIAL DISCLOSURES

<b>Books of Account &amp; Other Records etc.</b> <ul style="list-style-type: none"> <li>• Sec 34</li> <li>• For each year</li> <li>• Cash / Accrual Basis, Double entry system</li> <li>• Maintain at Registered office</li> <li>• Statement of Account &amp; Solvency within 6 months from end of each F.Y.</li> </ul>	<b>Accounting &amp; Auditing Standards</b> <ul style="list-style-type: none"> <li>• Sec 34a</li> <li>• CG with consultation with NFRA prescribes:-                             <ol style="list-style-type: none"> <li>1. Standards of Accounting</li> <li>2. Standards of Auditing</li> </ol> </li> </ul>	<b>Annual Return</b> <ul style="list-style-type: none"> <li>• Sec 35</li> <li>• Annual Return within 60 Days of closure of F.Y.</li> </ul>
---	---	--

## WINDING UP & DISSOLUTION



## SPECIAL COURT

### Establishment

- Sec 67A
- For speedy Trial of offences
- Until special court designated, Courts u/s 435 of Companies Act, 2013 → deemed to be special court.

### Procedure & Powers

- Sec 67B
- Offences u/s 67A triable only by special courts
- Special court may try another offence
- May proceed with summary trial

### Appeal & Revision

- Sec 67C
- High Court may exercise powers conferred by CrPC.



# INDEX

## Regular

Name of the chapter	Page No.
Chapter 1 - Nature and Scope of Business Economics.....	1.1 - 1.04
Chapter 2 - Theory of Demand and supply .....	2.1 – 2.16
Chapter 3 - Theory of production and cost .....	3.1 – 3.15
Chapter 4 - Price Determination in Difference Markets .....	4.1 – 4.16
Chapter 5 - Business Cycle.....	5.1 - 5.5
Chapter 6 - National Income .....	6.1 – 6.17
Chapter 7 - Public Finance .....	7.1 – 7.20
Chapter 8 - Money Market .....	8.1 – 8.16
Chapter 9 - International Trade .....	9.1 – 9. 22
Chapter 10 - Indian Economy .....	10.1 – 10.10
Chapter 11- Economist Name.....	11.1 – 11.02
Chapter 12 - Formula Summary.....	12.1 – 12.02

# Chapter 1

## Nature and Scope of Business Economics

1. Economics originated from **Greek work** ''*Oikonomia*'. '*Oiko*'-'House' & '*Nomia*'-'Management'.
2. Till 19<sup>th</sup> century, Economics was also known as '**Political Economy**'
3. Basic Economics problem **unlimited wants**, and **Scarce resources**.
4. Resources shall be allocated to their **highest valued uses**.
5. Economics is study of **transformation of the scarce resources** into G&S to satisfy the most important of our **infinite wants**
6. The book named '**An Inquiry into the Nature and Causes of the Wealth of Nations**' (1776), by **Adam Smith** is considered as the first modern work of Economics.
7. **Decision making** - process of **selecting an appropriate alternative** that will provide the most efficient means of attaining a desired end, **from two or more alternative** courses of action'.
8. **Decision making** arises only if there is choice available. No alternatives no decision making- e.g.- Continue or shut down decision, New Product, Make or buy, Marketing
9. **Joel Dean** defined Business Economics as the use of economic analysis to make business decisions involving the best use of an **organization's scarce resources**.-
10. Business Economics is referred as **Managerial Economics**, generally refers to the integration of economic theory with business practice.
11. **Economic theories are hypothetical** and **simplistic** in since based on simplifying assumptions.
12. Business Economics enables application of economic logic and analytical tools to **bridge the gap** between theory and practice.
13. Business Economics is not only valuable to business decision makers, but also useful for managers of '**not-for-profit**' organizations
14. **Difference between Micro and Macro Economics**

<b>Micro Economics</b>	<b>Macro Economics</b>
Greek work ' <b>Mikros</b> ' which means ' <b>Small</b> '	Greek work " <b>Makros</b> ' which means ' <b>large</b> '
"Study of <b>particular firm</b> , particular household, individual price, wages, income, individual industries, particular commodities"- <b>Prof. Boulding</b>	"Macro Economics examines the <b>Forest and not the Trees. Large aggregates</b> "- <b>Prof. Mc. Connel</b>
Behavior of <b>individual</b> firm or industry	<b>Overall economic phenomena</b>
It is also called as ' <b>Price Theory</b> '	It is also called as ' <b>Income Theory</b> '

15. **The Nature of Business Economics is described as under-**
  - (a) **Business Economics is a Science-** Explains cause and effect relationships.
  - (b) **Business Economics is an art** -application of rules and principles
  - (c) **Micro Economics based and Macro Analysis based**
  - (d) **Analysis from Private Enterprises Economy viewpoint**
  - (e) **Inter-Disciplinary-** Integrates the tools of decision sciences such as Mathematics, Statistics and Econometrics with Economic.
  - (f) **Pragmatic Approach-**



## 16. Normative and positive –

Positive Economics or Pure economics	Normative Economics
It is based on facts and there is no point of ambiguity or second view	It tells us about how the things should be.
Descriptive in nature & It states 'what is'	Prescriptive in nature & describes 'what ought to be'.
It explains cause & effect relationship and there will be no value judgments/suggestions.	It passes value judgments /suggestions and offers advice.
It is based on past data and can be checked with data	Cannot be verified because it is opinion based and not fact based
No Matter of debate	Matter of Debate
According to Robbins, Economics is neutral between ends.	It is based on welfare economics - (Marshall & Pigou) Complete neutrality between ends is, however, neither feasible nor desirable.

## 17. Scope of Business Economics

a. Microeconomics applied to operational or internal Issues- issues within the organization and fall within the purview and control of the management.

1. Demand Analysis	2. Demand Forecasting	3. Cost analysis
4. Theory of Capital and Investment Decisions	5. and Uncertainty Analysis	6. Market Structure and Pricing Policies
7. Resource Allocation	8. Production analysis	9. Inventory Management
10. Profit analysis		

b. Macroeconomics applied to environmental or external issues- issues out of preview of an organization The major macro-economic factors relate to

- 1) The type of economic system.
- 2) Stage of business cycle.
- 3) The general trends in national income, employment, prices, saving and investment.
- 4) Government's economic policies like industrial policy, competition policy, monetary and fiscal policy, price policy, foreign trade policy and globalization policies.
- 5) Working of financial sector and capital market.
- 6) Socio-economic organizations like trade unions, producer and consumer unions and cooperatives.
- 7) Social and political environment.

### Central Economic Problems

1. All countries, without exceptions, face the problem of scarcity because their resources are **limited** and these resources have **alternative uses**.
2. If a resource has only a single use, then also the economic problem would not arise.
3. The central economic problem is further divided into four basic economic problems.
  - a) **What to produce? Which goods and in what quantities**
  - b) **How to Produce? Method of production**, (labour- intensive or capital - intensive)
  - c) **For whom to produce?** How the G&S should be distributed among members of the society. Also **shares of different people** in the national product.
  - d) **What provisions (if any) are to be made for economic growth?-saving and investment**
4. **Understanding different types of Economies**

Particular	Capitalist economy	Socialist economy	Mixed Economy
<b>Also Known as</b>	Free market economy or laissez-faire economy	Karl Marx and Frederic Engels in their work 'The Communist Manifesto' published in 1848	Depends on both markets and govt.
<b>Most imp Feature</b>	Private Ownership	Collective Ownership/ Public ownership	<i>Include the best features of both the controlled economy and the market economy while excluding the demerits of both.</i>
<b>Other points</b>	Private property is the mainstay. Profit motive is its driving force		
<b>How CEP are solved</b>	Impersonal forces of market demand and supply or the price mechanism		
<b>What To produce</b>	Decided by consumers	Decided by CPE	
<b>How to produce</b>	Cost of production minimum. Labor or capital Intensive		
<b>For Whom to produce</b>	Those who have buying capacity		
<b>What provision are to be made for economic growth?</b>	Depends upon level of interest rate for consumer and rate of return in Market for business firm		

#### 5. Characteristics of each type of economy

Capitalist economy	Socialist economy	Mixed Economy
a. Right to private property	a. Collective Ownership of means of production by state however, small farms, workshops & trading firms which may remain in private hands.	a. Government itself must run important and selected industries and eliminate the free play of profit motive and
b. Freedom of enterprise	b. Profit- motive and self- interest are not the driving forces	
c. Freedom of economic choice	c. The resources are used to achieve certain socio-economic objectives.	
d. Profit Motive		
e. Consumer Sovereignty		
f. Competition		



g. Absence of Government Interference	d. Centrally planned economy e. Absence of Consumer Choice- f. Relatively Equal Income Distribution- g. Minimum role of Price Mechanism or Market forces- h. Absence of Competition	self-interest.
---------------------------------------	---	----------------

### 6. Merits of each type of economy

Capitalist economy	Socialist economy	Mixed Economy
a) Self-regulating through price mechanism. b) Rewards efficiency and punishes inefficiency. c) Faster economic growth d) Optimum allocation of resources e) Operative efficiency. f) Lower cost of production g) Better standard of living of consumers h) Incentive for innovation and Technological progress. i) Right to private Property j) No costs for collecting and processing of information	a) Equitable distribution of wealth and income b) Rapid and balanced economic development c) Planned Economy- d) Minimum Wastage and optimum utilisation of resource- e) Unemployment is minimized, f) Absence of profit motive g) Right to work and minimum standard of living h) High Social security	a) Economic freedom and existence of private property b) Price mechanism c) Consumer sovereignty and freedom of choice. d) Appropriate incentives e) Encourages enterprise and risk taking. f) Advantages of economic planning g) Comparatively greater economic and social equality and freedom h) No cut throat competition

### 7. Demerits of each type of economy

Capitalist economy	Socialist economy	Mixed Economy
a) Precedence of property rights over human rights. b) Inequality and social injustice c) Wide differences in economic opportunities. d) Does not represent the real needs of the society. e) Exploitation of labour f) Consumer sovereignty is a myth g) Misallocation of resources h) Less of merit goods i) Unplanned production. j) Waste of productive resources k) Formation of monopolies l) Environmental degradation.	a) Inefficiency and delays, corruption, red-tapism, favoritism, b) All material means of production are under the control and direction of state. c) Takes away right of private property. d) No incentive for hard work e) Administered prices f) State monopolies become uncontrollable g) Consumers have no freedom of choice. h) No importance to personal efficiency and productivity. i) The extreme form of socialism is not at all practicable	a) Excessive controls the private sector. b) Poor implementation c) Undue delays

# Chapter 2A

## Consumer Behaviour & Utility Analysis

1. Utility is **want satisfying power** of a commodity is called as utility.
2. Utility is **subjective** term and differs from person to person
3. **Utility does not mean usefulness.**
4. Utility is **ethically neutral**.
5. Human beings have virtually unlimited wants, Each single want is **satisfiable (capable of being satisfied)**
6. **Consumer spends his income** on different G&S to attain **maximum satisfaction**.
7. **Difference Between Cardinal and Ordinal Approach**

	Cardinal Approach	Ordinal Approach
Assumptions	Measurable and quantifiable	Utility is not quantifiable
Rationale	Human satisfaction can be expressed in monetary terms,	Human Satisfaction is psychological phenomenon
Economists	Alfred Marshall	Hicks and Allen

### CARDINAL APPROACH

Refer Table for further discussion :( Table 2.1)

Quantity of Oranges consumed per day	Total utility	Marginal Utility	Price	Consumer's Surplus in Rs.
0	0	0	0	0
1	60	60	40	20
2	110	50	40	10
3	150	40	40	0
4	180	30	40	-10
5	200	20	40	-20
6	210	10	40	-30
7	210	0	40	-40
8	200	-10	40	-50
9	180	-20	40	-60

8. **Total Utility-** The **sum total** of utility derived from different units of commodity
9. **Marginal Utility-** Additional utility derived from additional unit of a commodity.  
Marginal Utility can also be defined as **change in the total utility resulting from one- unit change ( $TU_n - TU_{(n-1)}$ )** in consumption of commodity, **per unit of time or, Change in Utility/ change in Qty.**



**10. Assumptions under Marginal utility analysis and cardinal approach**

- a) **Cardinal Measurability of Utility**- Utility is measurable and quantifiable.
- b) **Comparability of Utility across the goods**- Satisfaction derived by a person from different commodities can be compared.
- c) **Independence of Utilities**-
- d) **Constant Marginal Utility of Money**-

**11. Law of diminishing Marginal utility** states -*as a consumer consumes more of stock, the extra satisfaction that he derives from an extra unit, declines with the increase in consumption of that item.*

**12.** If same goods have capacity to satisfy other wants then their marginal utility would not have decreased.

**13. Conclusion as per law of Diminishing marginal utility**

- a) Total Utility increases at **diminishing rate**.
- b) Marginal Utility is **Downward Sloping curve**, moving from **left to right**
- c) Marginal utility is **negatively sloped curve**.
- d) **Where Marginal Utility is negative, Total utility decreases**.
- e) **MU goes on decreasing & becomes negative beyond a certain point of time**.

**14. Assumptions and Exception to Law of Marginal utility**

- a) Standard Units- Suitable size.
- b) Homogeneous units-
- c) Constant Income-
- d) Constant Taste/ fashion- Continuous consumption-
- e) Cardinal approach- Utility is quantifiable

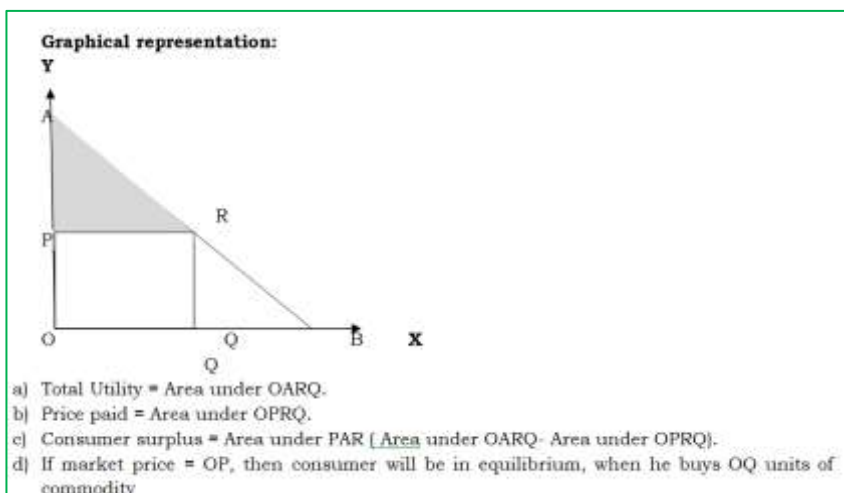
**15. Exceptions to Law-**

- a) **Personal Aspects**- music, hobbies, etc
- b) **Money is excluded**-
- c) **Other possessions**- substitute or complimentary.

**16. Significance of Law**

- a) Law of diminishing marginal utility forms the basis of **Law of demand**.
- b) Law of diminishing marginal utility **indicates consumer's equilibrium and price**.
- c) Law of diminishing marginal utility explains the concept of **consumer surplus**
- d) **Price and MU moves together** up and down.
- e) Marginal utility varies **inversely with the supply**.
- f) MU of the goods increases as the quantity of **complementary goods** increases
- g) MU of the goods decreases as the quantity of **substitute goods** with the consumer increases.

17. **Law of Equi- marginal utility** - As per the law of Equi- marginal utility, If marginal utility of money spent on commodity X is greater than marginal utility of money spent on commodity Y, then the consumer will withdraw some money from purchase of Product Y and will spent on purchase of X, till MU of money in two cases becomes equal.
18. **Maximum Satisfaction**- The consumer will attain maximum satisfaction, and will be in equilibrium when MU of money spent on various goods that he buys, are equal.
19. **Consumer's Equilibrium**: Consumer is in equilibrium when **price of the commodity = MU**.  
Similarly for more than two products, consumer will be in equilibrium if-
- $$\frac{MU_x}{Price_x} = \frac{MU_y}{Price_y} = \frac{MU_z}{Price_z}$$
20. The consumer will attain maximum satisfaction, and will be in equilibrium when **MU of money spent on various goods that he buys, are equal**.
21. **Consumer Surplus: What a consumer is ready to pay - what he actually pays**.(refer table 2.1)
- The consumer continues to buy a commodity till MU = Price of the commodity
  - For all the earlier units purchased, MU > price paid. This difference is called as consumer's surplus
22. **Limitations to Consumer surplus**
- Relevant only if cardinal approach to measurement of utility** is assumed.
  - Consumer's surplus cannot be **measured precisely**
  - Consumer's surplus derived is affected by availability of **substitutes**.
  - In case of **necessaries**, consumer's surplus is infinite
  - Not applicable to **prestigious items**
  - It is assumed that MU of the **money is constant**, which is unrealistic.
23. **Graphical Interpretation: refer schedule above (2.1)**
- Consumer is in equilibrium at 3 units, where price = MU.
  - Consumer surplus is INR 20 and INR 10 at consumption level of 1 Orange and 2 oranges respectively.





## Ordinal Approach- Hicks and Allen Approach

## 24. Indifference curve analysis- Assumptions

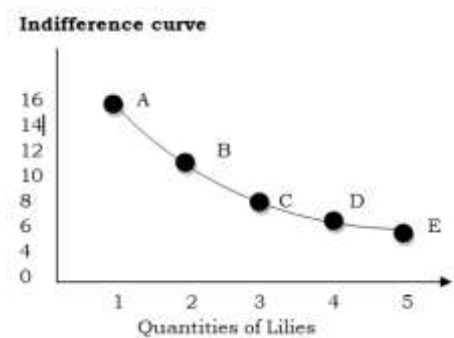
- Ordinal Approach to utility- UTILITY is not measurable in monetary terms.
- Consistency in ranking- If a consumer prefers X to Y and Y to Z , this automatically means that he must prefer X to Z.
- Rational Consumer-Ranking and preferences-
- Number of Goods- Customer prefers that combination which has more commodity in combination and tries to maximize his satisfaction.

## 25. Indifference curve analysis

- An Indifference curve is a curve which represents all those combination of goods which gives **same satisfaction** to the consumer.
- He remains **indifferent** among those combinations.

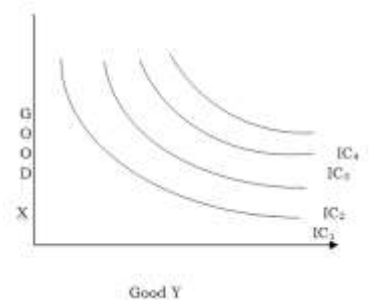
Example:

Combination	Roses	Lilies	Marginal Rate of substitution (MRS)
A	15	1	-
B	11	2	4 Roses per lily
C	8	3	3 Roses per lily
D	6	4	2 Roses per lily
E	5	5	1 Roses per lily



## 26. Indifference Map:

- A set of indifference curves is called as **Indifference Map**.
- An indifference map depicts complete **picture of customer's taste and preferences**.
- The consumer is *indifferent for any combination lying on same IC*.
- However he prefers **combination on Higher IC to combinations on lower IC**, as the combinations of higher IC give more satisfaction. So  $IC_4 > IC_3 > IC_2 > IC_1$ .
- Farther the IC from the origin, higher is the satisfaction level.**



## 27. Marginal rate of Substitutions

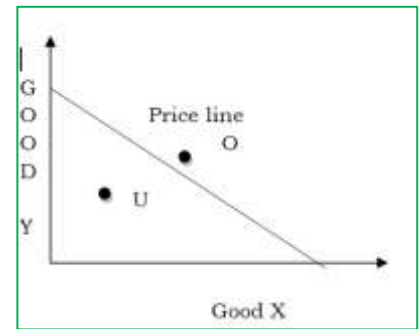
- Marginal rate of substitutions (**MRS**) indicates how much of one commodity is substituted for how much of another commodity.
- MRS is indicated by **Slope of IC curve** at a particular point.
- MRS show **decreasing trend** similar to concept of diminishing marginal utility.

## 28. Property of indifference curve

- Downward sloping to right- negatively sloped.**
- Convex to the origin-** due to **diminishing nature of MRS**.
- All point on an **IC gives same satisfaction-**
- Higher IC gives Higher level of satisfaction-
- Non Intersecting**

### 29. Budget line - Price line, Price opportunity line, Price- income line, Budget constraint line.

- A Budget line shows all those combinations of two goods which a consumer **can buy** spending **his given money income** on **two goods** at their given prices.
- Budget line is also called as Every point on Budget line represents **full** spending by the consumer.



### 30. Consumer Equilibrium under indifference curve approach

- Consumer will try to reach the **highest possible IC**.
- However his objective of buying higher quantity of goods is **restricted by Budget line**.
- Thus a consumer is in **equilibrium when he derives maximum possible satisfaction** from the goods, and is in **no position to re- arrange his purchase** of goods.



### 31. Assumptions under Ordinal Approach:

- The consumer has fixed money income which he has to spend wholly on **2 Goods**
- Prices are constant.
- The consumer has given an indifference map which shows his scale of preferences

### 32. Relationship of MRS and price at equilibrium,

- At equilibrium, slope of price line is equal to slope of Indifference curve.
- Slope of the line is  $P_x/P_y$ .
- Slope of indifference curve indicates Marginal rate of substitution of X for Y.  
 $MRS_{xy} = MU_x/MU_y$ .
- Hence at equilibrium  $MRS_{xy} = MU_x/MU_y = P_x/P_y$ , alternatively,  $MU_x/P_x = MU_y/P_y$ .



# Chapter 2B - Demand Analysis

1. **Demand = Willingness (Desire) and ability (Resources/Mean) + willingness to use those means**
2. Demand is determined at certain, (i) **Price** (ii) **place** or (iii) **time**.
3. The quantity demanded is a **flow**.
4. **Types of Demand**
  - a. **Individual Demand/ Company demand**- sub-system of total demand.
  - b. **Market Demand/ Industry demand**. sum total demand of all individual demand
  - c. **Price Demand** -Demand of consumer at various prices
  - d. **Income demand**- DD at various income levels. *According to this superior goods have greater demand and as the level of income lowers, inferior goods have higher demand.*
  - e. **Cross demand**- Demand due to availability of **Substitute goods or complementary goods**.
  - f. **Short run demand**- refers to the demand with its **immediate reaction**
  - g. **Long run demand**- refers to demand which exists over a long period.
  - h. **Derived demand**-The demand because of the **demand for some other commodity called 'parent product'**,
  - i. **Autonomous demand**- **Independent of the demand for other goods**.
  - j. **Producer goods** are used for the production of other goods - either consumer goods or producer goods themselves.
  - k. **Consumer goods** are used for final consumption.
    - ✎ **Durable goods** are those which can be consumed more than once.
    - ✎ **Non-durable** goods are those which cannot be consumer more than once
5. **Factors of Demand**
  - a. **Price of the commodity**: demand for a commodity is **inversely related** to its price.
    - ✎ **Complementary goods Inversely Related**
    - ✎ **Competing goods or substitutes- Directly Related**
  - b. **Income of the consumer**-
    - ✎ *As the level of income rises, increase in demand of necessities is proportionally less than increase in income.*
    - ✎ As the income level increase importance of food and other non durable goods in the overall consumption basket and a rise in the importance of durable goods
    - ✎ There are some commodities for which the quantity demanded decreases with an increase in money income beyond this level. These goods are called **inferior goods**. [ Also called as **Giffen goods** ]
  - c. **Tastes and preferences of consumers**-
    - ✎ Tastes and preferences of consumers are also influence by **'Demonstration effect'** or **'bandwagon effect'**, i.e. by seeing another person use a particular product/ commodity.
    - ✎ Sometimes, when a product becomes common among all, some people decrease or altogether stop its consumption. This is called **'snob effect'**.

- Highly priced goods are consumed by status seeking rich people to satisfy their need for conspicuous consumption. This is called '**Veblen effect**'

#### d. Population aspect-

- Size of the population**-Directly related
- Composition of population**: Directly if composition is in favor of demand
- The level of National Income and its Distribution**: Even Distribution More DD, uneven distribution less Demand
- Consumer-credit facility and interest rates**: Cheaper interest rate and larger availability of credit increases DD

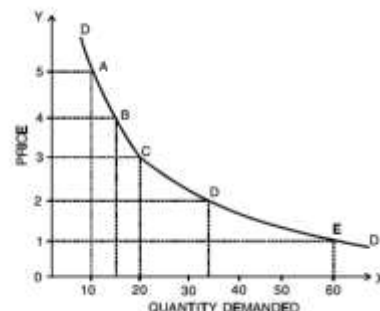
### 6. Law of Demand

- Other things being equal, **inverse relationship between price and quantity demanded**,
- The other things which are assumed to be equal or constant are:-
  - Prices of related commodities (complementary goods or substitute goods)
  - Income of consumers
  - Tastes and preferences of consumers, and
  - Such other factors which influence demand.

### 7. Schedule:-

#### 1. Illustration:

Price	Quantity demanded
5	10
4	15
3	20
2	35
1	60



### 8. Features of the Demand Curve

- Slopes downwards from left to right**
- Negatively sloped**
- May sometimes be a **straight-line** or sometimes a **free hand curve**
- Demand curve is also called **Average Revenue curve (ARC)**.
- The Market Demand curve is a **lateral summation** of individual Demand curve.

### 9. Rationale of the Law of Demand

- Law of diminishing marginal utility
- Substitution effect**:-When the price of a commodity falls, it becomes **relatively cheaper** than other commodities.
- Income effect**: As a result of fall in the price of the commodity, consumer's **real income or purchasing power** increases.
- Arrival of new consumer**: Rise in number and rise in buying capacity
- Different uses**:



### 10. Exceptions to the Law of Demand

- a) **Conspicuous goods:** Prestige value or snob appeal or conspicuous consumption or Veblen effect or prestige goods effect.
- b) **Giffen goods:** Inferior goods, with no close substitutes easily available and which occupy a substantial place in consumer's budget are called 'Giffen goods'
- c) **Conspicuous necessities:** The demand for certain goods is affected by the demonstration effect of the consumption pattern of a social group to which an individual belongs.
- d) **Future expectations about prices:**
- e) **Irrational consumer-**
- f) **Demand for necessities**
- g) **Ignorant consumer:**
- h) **Speculative goods**

### 11. Expansion and contraction in Demand VS Increase and decrease in Demand

Term	Meaning	Effect
Expansion/ Extension of Demand	Quantity demanded <b>Increases</b> , due to decrease in price	<b>Downward</b> movement along same Demand curve
Contraction of Demand	Quantity demanded <b>decreases</b> , due to increase in price	<b>Upward</b> movement along same Demand curve
Increase in DD	Quantity demanded <b>Increases</b> , due to change in any factor other than price	<b>Rightward Shift</b> of Demand Curve
Decrease in DD	Quantity demanded <b>decreases</b> , due to change in any factor other than price	<b>Leftward Shift</b> of Demand Curve

### 12. Elasticity of Demand

- ✎ Elasticity of demand is defined as the **responsiveness of the quantity demanded of a good to changes in one of the variables on which demand depends.**
- ✎ **the percentage change in quantity demanded divided by the percentage change in one of the variables on which demand depends**

### 13. Factors affecting demand and name of their elasticity

Factors	Name of Elasticity	Denoted by
Price of the commodity	Price Elasticity	$E_P$
Income of the consumer	Income Elasticity	$E_I$
Price of the related product	Cross Elasticity	$E_C$
Availability of the substitute	Substitution Elasticity	$E_S$

## 14. Methods of calculation of Price Elasticity of Demand

Methods	Formula	Used when	Diagram
Percentage change or proportional Method	$[E_p] = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in Price}}$	<ol style="list-style-type: none"> <li>1. Responsiveness of quantity demanded of a commodity, to a change in Price</li> <li>2. % change in quantity demanded divided by the % change in price, other things remaining equal</li> </ol>	Answer will be in negative denoting Inverse relation
Point Elasticity- Method of derivative	$E_p = -dq \cdot p \div dp \cdot q$	<ol style="list-style-type: none"> <li>1. change in price is infinitesimal (very small)</li> <li>2. Makes use of derivative rather than finite changes in price and quantity</li> </ol>	
Point Elasticity - Method of Graph	$E_p = \frac{\text{Lower segment}}{\text{Upper segment}}$	1. Applicable only for Straight- line Demand curve touching both the axes.	
Arc Elasticity Method	1. $E_p = \frac{q_1 - q_2}{q_1 + q_2} \times \frac{p_1 + p_2}{p_1 - p_2}$	<ol style="list-style-type: none"> <li>1. Arc Elasticity is a measure of average responsiveness</li> <li>2. Large change in prices and quantities</li> </ol>	
Total Outlay Method	<ol style="list-style-type: none"> <li>1. Elasticity is calculated by analysing the change in Total expenditure or Outlay of the household.</li> <li>2. By this method we can only say whether the demand for a good is elastic or inelastic; we cannot find out the exact coefficient of price elasticity</li> </ol>		
$E_p < 1$	<ul style="list-style-type: none"> <li>• Price and Expenditure moves in same direction.</li> <li>• Demand is said to be less elastic, or inelastic</li> </ul>	<ul style="list-style-type: none"> <li>▪ Price Increase and TR increase</li> <li>▪ Price Decrease and TR decrease</li> </ul>	
$E_p = 1$	<ul style="list-style-type: none"> <li>• Total Expenditure remains Unchanged.</li> <li>• Demand is said to be unit elastic</li> </ul>	<ul style="list-style-type: none"> <li>• Price Increase and TR unchanged</li> <li>• Price Decrease and TR unchanged</li> </ul>	
$E_p > 1$	<ul style="list-style-type: none"> <li>• Price and Expenditure moves in opposite direction.</li> <li>• Demand is said to be elastic</li> </ul>	<ul style="list-style-type: none"> <li>• Price Increase and TR decrease</li> <li>• Price Decrease and TR increase</li> </ul>	

## 15. Interpretation of Elasticity of Demand

Description	Numerical value	Interpretation	Nature of Curve
Perfectly inelastic	$EP = 0$	Qty. demanded does not changes as price changes	Vertical line Parallel to Y axis
Inelastic or less elastic	$0 < EP < 1$	Qty demanded changes by <b>smaller percentage</b> than price	Relatively steeper Demand curve
Unit Elastic	$EP = 1$	Qty demanded changes exactly by same % as price	45 degree straight line Or rectangular hyperbola
Elastic	$1 < EP < \infty$	Quantity demanded changes by larger percentage than price	Relatively flatter demand curve
Perfectly elastic	$EP = \infty$	Small change in price will bring infinite change in quantity demanded	Parallel to X axis

## 16. Determinants of price Elasticity

- a) **Availability of substitutes:** \_\_\_\_\_ relationship
- b) **Position of a commodity in a consumer's budget:**
  - Goods having higher proportion of consumers' spending are \_\_\_\_\_ to demand.
  - Goods having lower proportion of consumers' spending are \_\_\_\_\_ to demand.
- c) **Number of uses to which a commodity can be put:**
  - Multiple uses have \_\_\_\_\_ to demand.
  - Specified or particular use have \_\_\_\_\_ to demand.
- d) **Time period:**
  - The long run demand for a commodity is \_\_\_\_\_.
  - The short run demand for a commodity is \_\_\_\_\_ to change in price.
- e) **Consumer habits:**
  - Habitual Goods \_\_\_\_\_ Demand
- f) **Tied demand:**
  - Goods which have autonomous demand on their own are \_\_\_\_\_
  - Goods which have tied or joint demand are \_\_\_\_\_
- g) **Nature of the need that a commodity satisfies:**
  - Luxury goods are price \_\_\_\_\_-while necessities are price \_\_\_\_\_ to price change.
- h) **Price range:**
  - Goods which are in medium range of price level are \_\_\_\_\_ to price change.
  - Goods which are in very high price range or in very low price range have \_\_\_\_\_ DD.



## 17. Income Elasticity of Demand

Responsiveness of quantity demanded of a good to changes in the income of consumers

$$E_i = \frac{\text{Percentage change in quantity Demand}}{\text{Percentage change in income}} \times 100$$

## 18. Income Elasticity of Demand

Type	Relation between income & demand	Example	Formula	Curve
Positive Income Elasticity	Positive	Normal and Luxury goods	$E_y = 1$ $E_y > 1$ $E_y < 1$	
Negative Income Elasticity	Inverse	Inferior goods	$E_y < 0$	
Zero Income Elasticity	Constant (No change in demand though there is change in income)	Necessaries goods	$E = 0$	

## 19. Cross Elasticity of Demand

Cross elasticity of demand is degree of responsiveness of demand for one good to a change in price of other good.

$$E_c = \frac{\% \Delta Q_x}{\% \Delta P_y}$$

Positive Cross Elasticity	Direct or Positive relation (Goods must be substitute)	Tea & Coffee,	$CED = 1$ $CED > 1$ $CED < 1$	
Negative Cross Elasticity	Inverse relation (Goods must be complementary goods)	Car & Petrol	$CED < 0$	
Zero Cross Elasticity	Constant (No change in demand of one product though there is change in price of other product) goods must be unrelated	Cloth & salt	$CED = 0$	

## 20. Methods of demand Forecasting

1. Survey of Buyers' Intentions: direct interview of potential customers.
  - a. Complete enumeration method
  - b. Sample survey method

c. **End-use method**, especially used in forecasting **demand for inputs**, involves identification of all final users,

2. **Collective opinion method:**

- Sales force opinion method** or **grass roots approach**. Firms having a wide network of **sales personnel** can use the knowledge, experience and skills of the sales force.
- Although this method is simple and based on first-hand information of those who are directly connected with sales, it is **subjective as personal opinions**.

3. **Expert Opinion method:**

**Delphi Technique**

- The **Delphi technique**, developed by **Olaf Helmer** at the **Rand Corporation of the USA**, provides a useful way to obtain informed judgments from diverse experts

4. **Statistical methods:**

- Forecasts using statistical methods are considered as superior methods because they are more scientific, reliable and free from subjectivity.
- Trend Projection method**: This method, also known **classical method**, is considered as a 'naive' approach to demand forecasting.

i. **Graphical Method:**

ii. **Fitting trend equation: Least Square Method**: sum of the squared differences between the calculated and observed value is minimised.

5. **Regression analysis**: Relationship is established between the quantity demanded (dependent variable) and the independent variables (explanatory variables) such as income, price of the good, prices of related goods etc. Once the relationship is established, we derive regression equation assuming the relationship to be linear. The equation will be of the form  $Y = a + bX$ .

6. **Controlled Experiments**: also known as **market experiment method**.

- Under this method, future demand is estimated by conducting market studies and experiments on consumer behaviour under actual, though controlled, market conditions.

7. **Barometric method of forecasting:**

- Just as meteorologists use the barometer to forecast weather, the economists use economic indicators to forecast trends in business activities. This information is then used to forecast demand prospects of a product, though not the actual quantity demanded.
- For this purpose, an **index of relevant economic indicators** is constructed.
- Movements in these indicators are used as basis for forecasting the likely economic environment in the near future. There **are leading indicators, coincidental indicators and lagging indicators**. The leading indicators move up or down ahead of some other series.

21. **For Quick Practice**

Factors	Explanation	Elasticity
Nature of the commodity	Necessities.	Inelastic
	Luxurious goods.	Elastic
Level of income	Goods demanded by high income group.	Inelastic
	Goods demanded by low income group.	Elastic
Proportion of	Commodity on which Proportion of expenditure is low.	Inelastic

<b>expenditure</b>		
	Commodity on which Proportion of expenditure is large.	Elastic
<b>Level of price and change in price</b>	When price level of a commodity is too high and change in price is smaller.	Inelastic
	If price level is low and change in price is large.	Elastic
<b>Number of uses</b>	Commodity which has limited uses.	Inelastic
	Commodity which used to satisfy several wants.	Elastic
<b>Substitutes</b>	Commodity which have less substitutes.	Inelastic
	Commodity having several substitutes.	Elastic
<b>Urgency</b>	Commodity which is required urgently.	Inelastic
	Commodity which is not required urgently.	Elastic
<b>The Period</b>	Demand for commodity is inelastic in long run.	Inelastic
	Demand for commodity is elastic in short period.	Elastic
<b>Tied demand or Joint demand</b>	Demand for those goods, which are tied to others.	Inelastic
<b>Consumer habits</b>	Demand for commodity used by habitual consumer.	Inelastic



# Chapter 2C- Supply Analysis

- Supply refers to amount of a commodity seller is
  - **Able to sell** - depends upon stock of a commodity
  - **And willing to sell**- depends upon price of a commodity

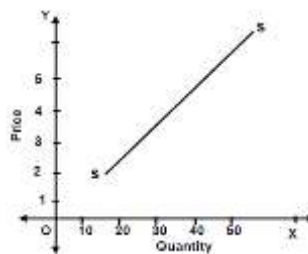
## 2. Determinants of supply on Factors affecting supply

Factors	Relation	Factor	Relation
Price		Cost of Production***	
Stock		Techniques of	
Time		Taxation policy	
Natural Resources		Trade policy	
Production		Infrastructure	
Weather conditions		Monetary Policy	

- Law of supply** states that "other things being equal" **there is a direct relationship between price and supply.**
- The law of supply is explained by **Dr. Alfred Marshall.**

## 5. Supply Schedule and Graph

Price	Supply
1	10
2	20
3	30
4	40
5	50



## 6. Features of Supply curve

- Slopes upwards from left to the right.
- Positively slope
- Straight—line or sometimes a free hand curve.
- The Market Supply Curve is a lateral summation (totaling) of Individual Supply Curves

## 7. Assumptions of Law of supply

- No change in cost of production
- No change in technology
- Normal weather conditions
- No change in infrastructural facilities
- No change in amount of Natural Resources
- No change in Taxation policy
- No change in monetary and trade policy

### 8. Increase and Decrease VS Expansion and contraction in the Quantity Supplied

Increase In SS	Decrease In SS	Expansion in SS	Contraction in SS
Increase in Supply take place as a result of changes in <b>factors other than price</b> , while price remains constant.	Decrease in Supply take place as a result of changes in <b>factors other than price</b> , while price remains constant.	Rise in the <b>quantity supplied</b> takes place as a result of changes in <b>price</b>	Fall in <b>the quantity supplied</b> takes place as a result of changes in <b>price</b>
_____Shift	_____Shift	Upward Movement along same SS curve	Downward Movement along same SS curve

### 9. Exceptions to law of Supply

Labour Supply		
Wage rate	Labour supply	Total income
Rs.100/hr	12 hr.	1200/day
Rs.250/hr.	15 hr.	3750/day
Rs.700/hr.	10 hr.	7000/day

This is Backward bending supply curve

<b>Need for cash-</b>	Seller may sell at lower price and supply more Qty if needs more cash
<b>Savings</b>	If a person wants a fixed amount of income in the form of interest then, he will save more at a lower rate of interest and save less at a higher rate of interest
<b>Future Expectations</b>	With a small rise in price, if seller expects a further rise in future he will decrease the supply & vice-versa

### 10. Methods of measurement of Elasticity of supply

Methods of measurement of Elasticity of supply	
<b>1. Percentage / Proportionate Method:</b> According to this method elasticity of supply is calculated by dividing a % or proportionate change in supply with the % or proportionate change in price. As explained above	
$\frac{\% \text{ Change in supply}}{\% \text{ Change in Price}}$	$\frac{S1 - S2}{S1} \times 100$ $\frac{P1 - P2}{P1} \times 100$

**2. Point Method:** This method is used to find out elasticity at a point on supply curve. The elasticity at a point on the supply curve can be measured with the help of following formula.

$$ES = \frac{dq}{dp} \times \frac{p}{q}$$

**3 Arc Elasticity:** when the price change is somewhat larger and we have to measure elasticity over an arc rather than at a specific point on it, in such cases, the concept of arc elasticity is used. In arc elasticity we use the average of the two prices and quantities (Original & new)

$$ES = \frac{Q_1 - Q_2}{Q_1 + Q_2} \times \frac{P_1 + P_2}{P_1 - P_2}$$

Where P1 and Q1 are original price and quantity respectively and P2 and Q2 are new price and quantity respectively.

**11. Elasticity of Supply** refers to degree of **responsiveness of supply to change in its price.**

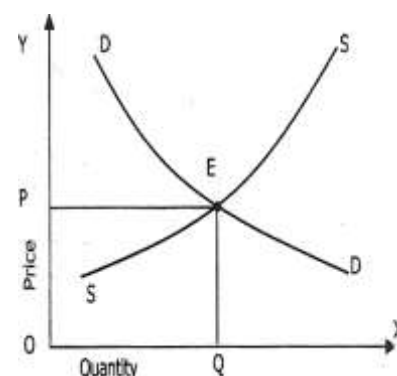
Or, Elasticity of Supply refers to the *ratio between percentage or proportionate change in supply and percentage or proportionate change in price.*

Perfectly Elastic Supply	Relatively Elastic Supply Or, More Elastic	Unitary Elastic Supply	Relatively Inelastic Supply Or, less Elastic	Perfectly Inelastic Supply
$Es = \infty$	$Es > 1$	$Es = 1$	$Es < 1$	$Es = 0$

**12. Equilibrium Price:**

The determination of Equilibrium Price using Demand and Supply is explained in the following manner -

- ✦ Demand Curve slopes downwards from left to right, while Supply Curve slopes upwards from left to right.
- ✦ Point E constitutes the **Stable Equilibrium** for the product, other things remaining equal.
- ✦ The Equilibrium Price is OP, and the quantity bought and sold at that level is OQ units.





# Chapter 3A - Production Concepts

1. According to James Bates and J.R. Parkinson "Production is the organized activity of transformation of Raw material into Finished G&S to satisfy the demand
2. Production is any economic activity, which satisfy human wants.
3. Production = **Creation of Utility or Addition of utility.**
4. **Methods of Creation of Utility-**
  - a) Form Utility
  - b) Place Utility
  - c) Time Utility
  - d) Personal Utility

## 5. Factors Of Production

### I. Land

- a) Every free gift of nature on Surface of the earth + below the surface of the earth+ above the surface of the earth
- b) No Social Cost: Since no sacrifice is made in creation of land.
- c) Permanent factor:
- d) Passive factor:
- e) Heterogeneous factor and site value differs from place to place
- f) Mobility: Geographically land is \_\_\_\_\_ but occupationally it is \_\_\_\_\_.
- g) Subject to diminishing returns:
- h) Supply: Supply of level is perfectly \_\_\_\_\_.

### II. Labour

- a) Mental or physical exertion to produce G&S, for economic reward.
- b) Perishable Nature- Labourer cannot store his Labour
- c) Labour is said to have no reserve price
- d) Weak bargaining power.
- e) Self- Source- Labour is inseparable from the Labourer himself.
- f) Variations in skill and productivity
- g) Productivity differs from person to person
- h) Peculiar relationship between labour supply and Wage rate- Backward bending Supply curve
  - i. **Direct Relationship: Generally**
  - ii. **Reverse Relationship at Higher Prices**
  - iii. **Reverse Relationship at Lower Prices**

### III. Capital

- a) Part of wealth which is used for further production of wealth, or which yields an income.
- b) Capital is a stock concept
- c) Capital refers to only that part of wealth, that is used for further production. Therefore not all wealth is capital but all capital is wealth.
- d) Produced means of Production
- e) Man-made means / factor
- f) Mobility
- g) Perishable factor- that's why we charge depreciation

#### h) Types of Capital:

Fixed Capital:	Working Capital:	Sunk Capital:	Floating Capital:	Money Capital:	Real Capital:
----------------	------------------	---------------	-------------------	----------------	---------------

#### j) Stages in capital Formation

- i. **Savings:** Ability to save depends upon the income capacity of individual.
- ii. **Mobilization of Savings:** network of banking and other financial institutions
- iii. **Investments:**

### IV. Entrepreneur-

- a) Person who **combines the various factors of production** in the right proportions, **initiates the process of production** and **bears the risk involved** in it.
- b) Also Called as **Organiser, Manager** or the **Risk-Taker**.
- c) Without the Entrepreneur, the other factors of production would remain unutilized or idle.
- d) Holds **final responsibility** of the business.
- e) Entrepreneurship gets its **reward (i.e. Profit)**, only after all other factors of production have been rewarded, i.e. after Rent, Wages and Interest.

#### f) Functions of an Entrepreneur

- i. **Initiating and Running the business:**
- ii. **Risk-Bearing:**
- iii. **Innovations:**

#### g) Enterprise Objective

- i. **Organic Objectives** - Survival then Growth and Expansion
- ii. **Economic Objectives**- Profit Maximizing Objective
- iii. **Social Objectives:** Avoid anti-social practices, opportunities for gainful employment, continuous and sufficient supply of unadulterated goods, does not cause any type of pollution.
- iv. **Human Objectives:** All the objectives towards its employees
- v. **National Objectives:**

**h) Constrains and Problems in achieving objective**

Constrains in achieving the objectives	Enterprise's Problems
a) Information b) Infrastructure c) Factors of Production d) Economic Aspects	a) Objective b) Location of Plant c) Size of Plant: d) Physical Facilities e) Finance: f) Organisation Structure: g) Legal Compliance: h) Industrial Relations:

**PART B - PRODUCTION FUNCTION**

1. Production Function is the **functional relationship** between **physical inputs and physical outputs**
2. The maximum amount of output that can be produced with given quantities of inputs, in the existing state of technology.
3. Production Function gives the minimum quantities of various inputs that are required to yield a given quantity of output.
4. **Cobb-Douglas Production Function**
  - a) Output is manufacturing production and **inputs used are Labour and Capital**.
  - b) Cobb-Douglas Production Function is  $Q = K^a L^b C^c$ .  
 Where, **Q** is output, **L** is Quantity of Labour and **C** the qty of Capital. **K** and **a** are Positive Constants.
  - c) Labour contributed about  $3/4^w$  and Capital about  $1/4^th$  of the increase in the Manufacturing Production.

**5. Short run and long run production function**

	Short Run	Long Run
<b>Fixed Factor</b>	Only one Factor of Production is kept constant or fixed. [Generally and, Capital or Enterprise is taken as fixed.]	There is no Fixed Factor of Production in the long—run planning horizon. <b>all the factors production are variable.</b>
<b>Proportion between Factors</b>	Production is increased by increasing proportion of variable factor only, keeping fixed factor constant	Production is changed by changing all the Factor of Production simultaneously
<b>Theory</b>	<b>Law of Variable Proportions</b> is applicable in the short—run.	<b>Law of Returns to Scale</b> is applicable in the long—run.

**6. Assumptions:**

- It is related to a **particular unit of time**.
- The **technical knowledge** during that period of time **remains constant**.
- The factors of production are **divisible into most viable units**.
- The producer is using the **best technique available**.



7. Understanding Short term production function

<b>Total Production</b>	Total Output				
<b>Average Production</b>	$AP = TP / \text{Units of variable input (labour)}$				
<b>Marginal Production (MP)</b>	<p><b>Additional TP due to an additional unit of input.</b>  <math>MP = \text{Change TP} / \text{change in Labors}</math> Or,  <math>Mp = MP = TP_n - TP_{n-1}</math></p>				
<b>Relationship between AP and MP</b>	<p>1. Both AP and MP can be calculated by TP.                  2. When AP rises then MP also rises but <math>MP &gt; AP</math>.                  3. When AP is maximum then <math>MP = AP</math> or say MP curve cuts the AP curve at its maximum point                  4. When AP falls then MP also falls but <math>MP &lt; AP</math>.                  5. There may be a situation when MP decreases and AP increases but opposite never happened.</p>				
<b>Schedule</b>	<b>Labour</b>	<b>TP</b>	<b>AP</b>	<b>MP</b>	<b>Analysis</b>
	1	2	2	2	MP & AP both increases; $MP > AP$ ; TP also increases
	2	5	2.5	3	
	3	9	3	4	
	4	12	3	3	MP=AP, AP = maximum
	5	14	2.8	2	MP & AP both decreases, $MP < AP$ ; TP increases MP = 0, TP=maximum
	6	15	2.5	1	
	7	15	2.1	0	
	8	14	1.7	-1	AP > MP both decreases TP decreases
	9	12	1.3	-2	



Rule	Relationship between TP and MP
1	When TP increases at an <b>increasing rate</b> , MP shows an increase.
2	When TP increases at a <b>decreasing rate</b> , MP shows a decrease.
3	When TP is <b>maximum</b> , MP is <b>zero</b> .
4	When TP <b>decreases</b> , MP becomes <b>negative</b> .

<b>Relationship between Average Product and Marginal Product</b>	<p>a. When AP rises, <math>MP &gt; AP</math>.                  b. When AP is maximum, <math>MP = AP</math>.                  c. MP declines slightly earlier than AP                  d. MP Curve cuts AP Curve from above when AP is maximum.                  e. When AP decreases, <math>MP &lt; AP</math>.                  f. MP Curve declines steeply than AP.                  g. MP may become zero and negative later, but AP continues to remain positive</p>
--	--

**Note: The point on the TP Curve when MP is maximum, is called Point of Inflexion**

## 8. Law of Variable Proportion/ Law Of Proportionality/ Law Of Diminishing Returns /Law Of Diminishing Marginal Physical Productivity.

- (a) The **Law of Variable Proportions** operates in short run only
- (b) Output is increased by varying the quantity of one input.

## 9. Explanation to Various Stages

### a) Explanation to Stage 1

01. **Full Use of Fixed Indivisible Factors**- Fixed Factors are more intensively and effectively utilized. This causes the production to increase at a rapid rate.
02. **Efficiency of Variable Factors**- Through Specialization
03. **No Scarcity of Variable factor**
04. **Reaching the right combination**

### b) Explanation to Stage 2-

01. **Inadequacy of Fixed Factor**
02. **Less efficiency of Variable Factor**
03. **Imperfect Substitutes**
04. **Wrong combinations**

**Note: Stage II is called Law of Diminishing Returns since MP and AP both show decreasing trend. However, both MP and AP remain positive**

### c) Explanation to Stage 3

01. **Variable Factor becomes too excessive, Due to this, the total output falls instead of rising.**
02. **Stage III is called Law of Negative Marginal Returns**

**Since the second stage is the most important, So stage II will be stage of operation and because of that in practice we normally refer to the law of variable proportion as the law of diminishing returns.**

Stage I and III is the stage of economic absurdity or stage of economic nonsense

## Law of Return to scales- Operates in Long Run Only

1. All factor inputs in the production function can be changed. **The behavior of output consequent to change in the quantities of all factor inputs in the same proportion** (i.e. keeping, the factor proportions unaltered) is known as 'returns to scale'.

Increasing Returns to Scale:	Simultaneous increase in <u>all</u> the inputs in the same given proportion result in a <b>more than proportionate increase</b> in the output.	
Constant Returns to Scale:	<ol style="list-style-type: none"> <li>1. Proportionate increase in <u>all</u> the inputs results in <b>proportionate increase</b> in output.</li> <li>2. Constant return to scale is also called '<b>Linear Homogeneous Production Function</b>'.</li> </ol>	
Diminishing Returns to scale:	Simultaneous increase in <u>all</u> inputs in the same given proportion result in <b>a less than proportionate</b> increase in the output	

2. **Internal Economies and Diseconomies to Scale-** Use of greater degree of division of Labour and specialised machinery at higher levels of output are generally termed as **Internal Economies**.

Technical	Managerial	Commercial	Risk— bearing	Financial
All these factors are within the control of an organization and thus are internal Factors. These factors initially acts Economies but after a pint becomes diseconomies				

3. **External Economies are explained below —**

Cheaper Raw Materials and Capital Equipment for entire industry	Technological development for entire industry	Development of Skilled Labour	Growth of ancillary industries	Better transportation and marketing
---	---	-------------------------------	--------------------------------	-------------------------------------

4. **External Diseconomies:**

Rise in Factor Prices:	Higher Costs:	Government Restrictions:
------------------------	---------------	--------------------------



## Production Optimisation

### 1. Isoquant Curve:- "Iso" means equal and "quant" means quantity.

(a) An Isoquant is a Curve that shows all the combinations of inputs that **yield the same level of output**.

### 2. MRTS=Marginal Rate of Technical Substitution

(a) MRTS always shows diminishing trend.

(b) MRTS= Change in units of capital/ change in units of labour

Combination	Units of Labour (x)	Units of Capital (y)	Product Output	MRTS (See Note)
A	5	9	100 units	
B	10	6	100 units	$(9-6)/(10-5) = 0.6$
C	15	4	100 units	$(6-4)/(15-10) = 0.4$
D	20	3	100 units	$(4-3)/(20-15) = 0.2$

### 3. Features of Isoquants:

(a) Isoquants are **convex** to the origin, due to diminishing trend of MRTS

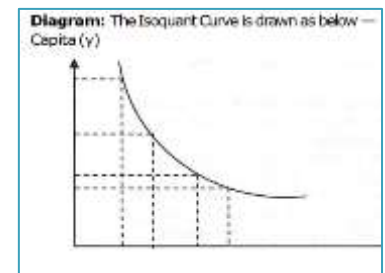
(b) Isoquants are **negatively sloped**, i.e. downwards from left to right.

(c) Isoquant **do not touch either axis**.

(d) Isoquants **need not be parallel**.

(e) Two Isoquants cannot cut each other, i.e. Isoquants are **non—intersecting**.

(f) An Isoquant lying **above** and to the **right** represents a **higher level of output**.



### 4. Isocost Lines: Equal—Cost Lines or Budget Line or the Budget Constraint Line.

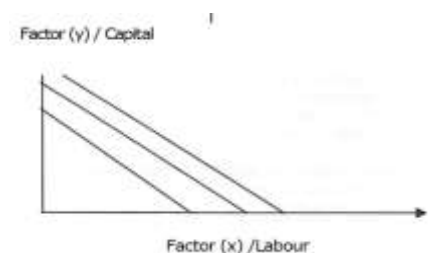
Isocost Line shows the various alternative combinations of two Factor Inputs, which a Firm can buy with given amount of money.

### 5. Production Optimisation

1. A Profit Maximising Firm is **interested to know what combination of factors of production** would minimise its Cost of Production for a given output, and also the optimum level of output.

2. **This is obtained by combining the Firm's Production and Cost Functions, namely Isoquants and Isocost Lines respectively.**

3. Isoquants represent the technical conditions of production for a product, and Isocost Lines represent various "**levels of cost**"(given the prices of two factors). Together, these can help the Firm to optimize its production.



## Meaning

1. Business decisions are generally based on **cost of production** i.e. the money value of inputs and output is considered.
2. In other words, **cost analysis is concerned with the financial aspects of production.**

### 3. Types of cost

Name	Explanation
<ul style="list-style-type: none"> <li>• Explicit cost</li> <li>• Out-of-Pocket Costs</li> <li>• Outlay Costs.</li> <li>• Accounting Costs</li> </ul>	<ol style="list-style-type: none"> <li>1. Costs which <b>involve cash payment</b> towards factors of production.</li> <li>2. <b>Recorded in books</b> of accounts.</li> <li>3. Rent, Wages &amp; Salaries, Interest on Loans borrowed for business, etc.</li> </ol>
<ul style="list-style-type: none"> <li>• Implicit cost</li> <li>• Notional cost</li> <li>• Imputed cost</li> <li>• Opportunity Costs.</li> </ul>	<ol style="list-style-type: none"> <li>1. Costs <b>do not involve any cash payment</b> to outsiders.</li> <li>2. It is the monetary reward for all factor of production <u>owned by entrepreneur himself</u></li> <li>3. <b>Not recorded in books</b> of account.</li> <li>4. Interest on own Capital, Rent of own premises, Salary to Entrepreneur, etc.</li> </ol>
Economic Costs	Explicit Costs + Implicit Costs.
Opportunity Cost	<ol style="list-style-type: none"> <li>1. It refers to the value of <b>sacrifice made</b>, or benefit of <b>opportunity foregone</b> in accepting a <b>next best alternative</b> course of action.</li> <li>2. Opportunity Cost arises only when alternatives are available. If a resource can be put only to a particular use, there are no Opportunity Costs.</li> <li>3. Opportunity Costs <b>do not involve any cash payment</b> as such.</li> <li>4. It is considered <b>only for decision—making</b> and analytical purposes.</li> <li>5. Examples: A person quits his job and enters into business. Here, the Salary foregone from employment constitutes Opportunity Cost.</li> </ol>
<ul style="list-style-type: none"> <li>• Direct cost</li> <li>• Traceable cost</li> </ul>	<ol style="list-style-type: none"> <li>1. Direct costs are those which have <b>direct relationship with a component of operation</b> like manufacturing a product, organizing a process or an activity etc.</li> <li>2. They are <b>charged directly</b> to product</li> <li>3. They can be generally <b>quantified and expressed per unit of output</b>, e.g. 5 kg of Raw Materials per unit of product, etc.</li> </ol>
<ul style="list-style-type: none"> <li>• Indirect cost</li> <li>• Non-traceable cost</li> </ul>	<ol style="list-style-type: none"> <li>1. Indirect costs are those which are <b>not easily and definitely identifiable</b> in relation to a plant, product, process or department.</li> <li>2. Therefore, such costs are <b>not visibly traceable</b> to specific goods, services, operations, etc.; but are nevertheless charged to different jobs or products in <b>standard accounting</b> practice and <b>Apportioned on suitable basis</b>.</li> <li>3. Factory Rent, Electric Power, and other Common Costs incurred for general operation of business benefiting all products jointly.</li> </ol>

Committed Fixed Costs	Also known as " <b>Unavoidable</b> " Fixed Costs. These costs cannot be controlled.
Discretionary Fixed Costs	Also known as " <b>Avoidable</b> " Fixed Costs. These costs can be controlled.
Historical cost / Sunk Cost	Historical cost refers to the cost <b>incurred in the past</b> on the acquisition of a productive asset such as machinery, building etc.
Replacement cost	Replacement cost is the money expenditure that has to be incurred <b>for replacing an old asset</b> .
Incremental cost	Incremental cost refers to the <b>additional cost</b> incurred by a firm.
Private cost	<b>Private costs</b> are costs actually incurred or provided for by firms and are either <b>explicit or implicit</b> .
Social Cost	<ol style="list-style-type: none"> <li><b>Social cost = private cost + external cost.</b></li> <li>It includes the cost of resources for which the firm is not required to pay price such as atmosphere, rivers, roadways etc. and the cost in terms of dis-utility created such as air, water and environment pollution.</li> </ol>

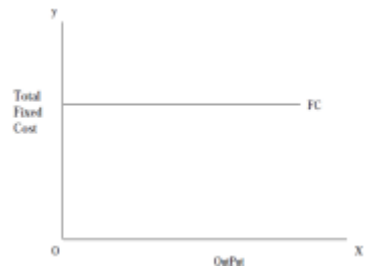
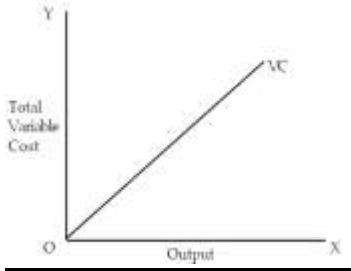
#### 4. Strike the incorrect

- Rent is paid to the Landlord, Salary/ wages paid to employee/ workers, Interest on Capital is borrowed and used in business is **Explicit / Implicit** cost.
- Land is owned by the Entrepreneur, Own people are employed in the firm, Entrepreneur employs his own funds as Capital is **Explicit / Implicit** cost.
- Entrepreneur himself manages the business is **Explicit / Implicit** cost.

#### 5. Important types of cost

Output (Unit)	Total fixed cost TFC	Total variable TVC	Total cost TC	Average fixed cost AFC	Average variables AVC	Average Total Cost AC	Marginal Cost Rs. MC
0	10	-	10	-	-	-	-
1	10	10	20	10	10	20	10
2	10	18	28	5	9	14	8
3	10	24	34	3.33	8	11.3	6
4	10	28	38	2.5	7	9.5	4
5	10	32	42	2	6.4	8.4	4
6	10	38	48	1.67	6.33	8	6
7	10	46	56	1.43	6.57	8	8
8	10	56	66	1.25	7	8.25	10
9	10	68	78	1.11	7.55	8.67	12

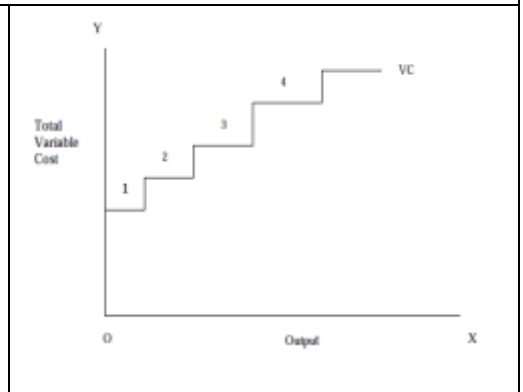
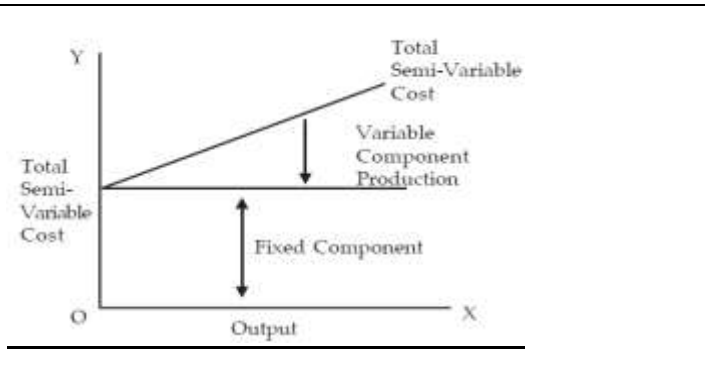


Type	Nature
<b>Fixed Costs</b>	<ol style="list-style-type: none"> <li>Fixed Costs are costs that do not vary with output.</li> <li>They are period—related.</li> <li>They are taken as a function of time and not of output.</li> <li>They are incurred even at zero level of output.</li> <li>Fixed Cost per unit of output decreases with increase in output, and vice—versa.</li> <li>Rent, Insurance, Interest on Loans, Depreciation, etc. are Fixed Costs.</li> </ol>
<b>Variable Costs</b>	<ol style="list-style-type: none"> <li>Variable Costs are costs that vary, based on the level of output.</li> <li>They are product—related.</li> <li>They are taken as a function of output and not of time.</li> <li>They are incurred only when production commences.</li> <li>Variable Costs are avoidable costs.</li> <li>Variable Cost per unit of output generally remains constant, if Total Variable Costs vary proportionately with output.</li> <li>Cost of Raw Materials and Wages are Variable Costs.</li> </ol>
<b>Marginal Costs</b>	<ol style="list-style-type: none"> <li>Marginal Cost is the addition made to the total cost by production of an additional unit of output.</li> <li>Marginal Costs per unit = <math display="block">\frac{\text{Difference in Total Cost (TC) between two output levels}}{\text{Difference in Output Quantity at those levels}}</math></li> <li><math>TC_n - TC_{n-1}</math></li> <li>Marginal Cost (MC) Curve of a Firm declines first, reaches its minimum and then rises. Hence, Marginal Cost Curve of a Firm is U—shaped.</li> </ol>
<b>Cost Function</b>	Mathematical relationship between cost of a product and the various determinants of cost
<b>Short Run</b>	<ol style="list-style-type: none"> <li>Period in which <b>some factors are fixed and some factors are variable</b>. Fixed factor have <i>fixed cost</i> and variable factor have <i>variable cost</i>.</li> <li><i>So, law of variable proportion applies</i> here. In short-run, output can be increased or decreased by changing variable factors only but fixed factors cannot be varied</li> </ol>
<b>Total Fixed cost (Short run)</b>	<p>TFC is parallel to X-axis. In the figure given below, even at zero output-fixed cost remain the same in the short run. e.g. rent and insurance</p> 
<b>Total Variable cost (TVC)</b>	<p>Variable Costs are those costs that change with changes in level of output. It has inverse's' shape and start from origin. Figure given below shows that as output is zero cost is also zero and as output increases cost increases. e.g. raw material, power etc.</p> 

**Semi-variable**

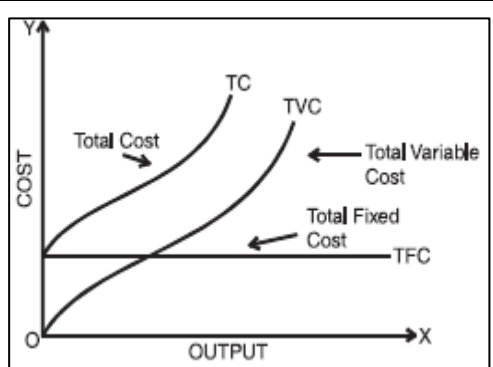
There are some costs which are neither perfectly variable, nor absolutely fixed in relation to the changes in the size of output.

**Example:** Elasticity charges include both a fixed charge and a charge based on consumption.



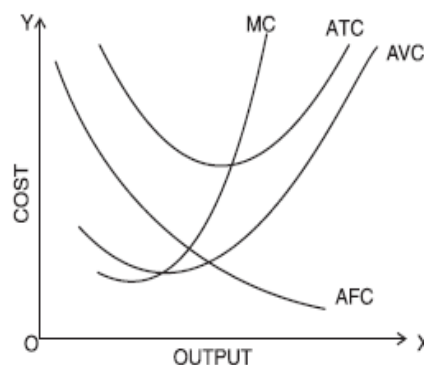
**Short run Total cost behaviour**

1. It can be noticed that TFC is constant at all levels of output.
2. TVC increases with the increase in output but rate of increase is changing.
3. Initially TVC increases at decreasing rate but after some time it increases at increasing rate.
4. Behaviour of TVC is determined by law of variable proportion.
5. TC increases with increase in output. Changes in TC are determined by TVC.
6. TFC curve is a horizontal line starting from y-axis.
7. TVC curve is upward slopping. Initially it is fatter and later on steeper.
8. TC curve is upward sloping starting from y-axis.



## 6. Short Run Average Cost

Average Fixed Cost (AFC)	<ol style="list-style-type: none"> <li>1. Average fixed cost is the <u>total fixed cost divided by the output</u>.</li> <li>2. <math>TFC/Q</math>.</li> <li>3. The general shape of the <b>AFC curve is downward sloping</b> it does not touch the X-axis as <b>AFC cannot be zero</b>.</li> <li>4. It is <b>not 'U' shape</b>. This curve is also called <b>Rectangular Hyperbola</b>.</li> </ol>
Average Variable Cost (AVC)	<ol style="list-style-type: none"> <li>1. Average variable cost is the <u>total variable cost divided by the output</u>.</li> <li>2. <math>TVC/Q</math>.</li> <li>3. The average cost curve will <b>first fall</b>, then <b>reach a minimum</b> and then <b>rise again</b>.</li> <li>4. It has <b>'U' shape</b>.</li> </ol>
Average Total Cost (ATC)	<ol style="list-style-type: none"> <li>1. Average total cost is <u>total cost divided by the output</u>.</li> <li>2. <math>TC/Q</math> or <math>AFC+AVC</math>.</li> <li>3. The ATC curve <b>first falls, reaches it's minimum and then rises</b>.</li> <li>4. The ATC curve is <b>'U' shape</b> due to law of variable proportions.</li> </ol>
Marginal Cost (MC)	<ol style="list-style-type: none"> <li>1. Marginal cost is the <u>change in total cost due to change in the output</u>.</li> <li>2. <math>MC = \text{Change in Total Cost} / \text{Change in Qty. produced}</math></li> <li>3. <math>MC = \text{Change Total Variable Cost} / \text{Change Qty. produced}</math>.</li> <li>4. The MC curve is also <b>'U' shape</b></li> </ol>
Behavior of Average costs in Short - Run	<ul style="list-style-type: none"> <li>• AFC goes on diminishing with the increase in output but it never becomes zero.</li> <li>• AVC initially declines but later on goes on increasing.</li> <li>• ATC initially decreases, constant for a while &amp; finally goes on increasing.</li> <li>• MC initially decreases &amp; finally increases.</li> <li>• The point at which ATC is minimum. It is equal to MC.</li> <li>• AFC curve is a 'rectangular hyperbola' because <math>AFC \times Q</math> is always constant.</li> </ul>



## 7. Relationship between Average Cost and Marginal Cost Curves

1. When AC falls as a result of an increase in output, MC is less than AC.
2. When AC is minimum,  $MC = AC$ . So, MC Curve cuts the AC Curve at its minimum.
3. When AC increases due to increase in output, MC is greater than AC.

## 8. Relationship between ATC and MC

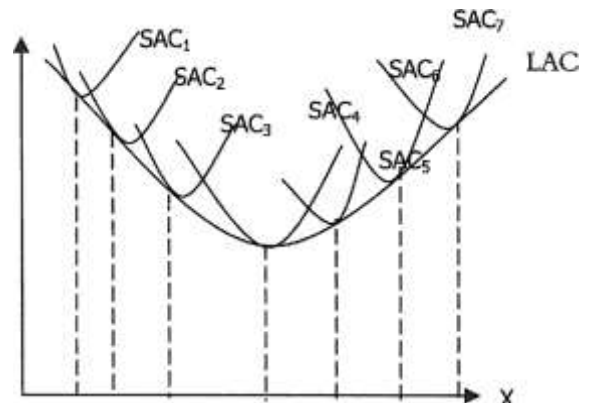
- ✓ Initially ATC & MC both decline with increase in output. In this situation  $ATC > MC$ .
- ✓ When ATC is minimum  $ATC = MC$ .
- ✓ When ATC & MC both are increasing  $MC > ATC$ .



- ✓ When AC is decreasing, MC may be decreasing or increasing.
- ✓ When AC is increasing MC must be increasing.

**9. Long run average cost curve**

- a) **LAC Curve:** A Long Run Average Cost Curve (denoted as **LAC Curve**) depicts the functional relationship between output and the long-run cost of production.
- b) **No distinction of Fixed - Variable:** All factors of production are variable in long-run.
- c) AC **cannot** be higher in the long-run, than in the short-run. Thus, LAC is the **least-cost** combination, for any particular output level.
- d) **Planning Curve:** LAC Curve is called Planning Curve.
- e) **SAC (Short-Term Average Cost) Curves are called Plant Curves.**
- f) **LAC derived from SAC:** LAC Curve is derived as an envelop / tangent of all SAC Curves. Further, the
- g) LAC Curve is a **U-Shaped Curve**, due to the operation of Law of Returns to Scale.
- h) **Selecting the suitable SAC Curve at different output levels:**
- i) **Note: The Firm should select the SAC, not the lowest point of that SAC.**
- j) **Deriving LAC Curve in case of numerous / infinite SAC Curves:**
- k) In the diagram, the LAC Curve is drawn as a smooth curve, so as to be **tangent** to each of the SAC Curves.
- l) **Note:** LAC Curve is tangent to each of the SAC Curves, not the minimum points of the SAC Curves. So



When LAC Curve is –	LAC will be tangent to	Principle
Declining	The <b>falling portions</b> of the SAC Curves.	Returns to Scale will first increase, due to internal and external economies. So, LAC will decline.
Rising	The <b>rising portions</b> of the SAC Curves.	Returns to Scale will decrease later, due to internal and external diseconomies. So, LAC will rise.

Thus, as a result of initial fall and subsequent increase in LAC, it will be a **U-shaped Curve**.

# REVENUE CONCEPT

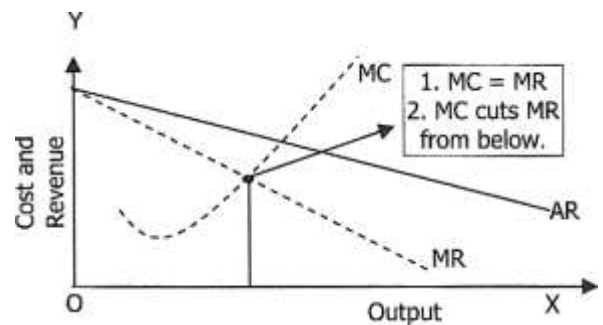
Qty (Q)	Price pu (AR=P)	TR = P×Q	MR	Space for Diagram
1	22	22	22	
2	20	40	18	
3	18	54	14	
4	16	64	10	
5	14	70	6	
6	12	72	2	
7	10	70	-2	
8	8	64	-6	
9	6	54	-10	
10	4	40	-14	
<b>Meaning</b>	<ol style="list-style-type: none"> <li>Revenue refers to money received by a seller by selling his product in the market.</li> <li>Hence, revenue is sales receipts or sales proceeds.</li> </ol>			
<b>Total Revenue</b>	<ol style="list-style-type: none"> <li>It is the total money received from the sale of all units of the product.</li> <li><b>Total Revenue = Price × Quantity (P × Q)</b></li> </ol>			
<b>Average Revenue (AR)</b>	<ol style="list-style-type: none"> <li><b>Average Revenue = Total Revenue/Quantity (TR/Q)</b></li> <li>Average Revenue is always equal to Price</li> </ol>			
<b>Marginal Revenue (MR)</b>	<ol style="list-style-type: none"> <li>MR is the <u>change in TR resulting from the sale of an additional unit of a commodity.</u></li> <li><b>Marginal Revenue = Change in TR/ Change in Qty.</b></li> <li><b>Marginal Revenue = TR<sub>n</sub> - TR<sub>n-1</sub></b></li> </ol>			
<b>MR, AR, TR and Elasticity of Demand</b>	Marginal Revenue = Average Revenue (E - 1/E) Where E = Price elasticity of demand <ol style="list-style-type: none"> <li>If E = 1, Then MR = 0</li> <li>If E &gt; 1, Then MR will be Positive</li> <li>If E &lt; 1, Then MR will be Negative</li> </ol>			
<b>Behaviour of TR, AR &amp; MR</b>	<ol style="list-style-type: none"> <li>A firm should produce at all if Total Revenue(TR) from its product is equal to or exceeds its Total Variable Cost (TVC) or say <math>TR \geq TVC</math> (Price <math>\geq</math> AVC).</li> <li>If <math>TR = TVC</math>, firm's maximum loss will be equal to its Fixed Cost. As we know <math>P \times Q = TR</math> and <math>AVC \times Q = TVC</math></li> <li>It will be profitable for the firm to increase output whenever <math>MR &gt; MC</math> and decrease output whenever <math>MR &lt; MC</math> and the firm should continue production till</li> <li><b>MR = MC and MC curve should cut to MR from below.</b></li> </ol>			

### Summary of Relationships:

TR and MR	<ul style="list-style-type: none"> <li>If TR increases, MR will be positive.</li> <li>When TR is maximum, <math>MR = 0</math>.</li> <li>If TR decreases, MR will be negative.</li> </ul>
MR and AR	<ul style="list-style-type: none"> <li>MR and AR both decline, but MR falls rapidly than AR</li> <li>AR Curve is flatter than MR.</li> <li>MR can be zero and even negative, while AR will never cross below the X axis.</li> <li>At the point where <math>MR = 0</math>, Elasticity of Demand on AR Curve will be 1.</li> </ul>

### Equilibrium Point of the Firm

- It will be profitable for the Firm to expand its output whenever Marginal Revenue (MR) is greater than Marginal Cost (MC), and to keep on increasing output **until  $MR = MC$** .
- If any unit of production adds more to Revenue than to Cost, production and sale of that unit will **increase** profits. Similarly, if it adds more to Cost than to Revenue, it will decrease profits.
- Profits will be **maximum** at the point where Additional Revenue (MR) from a unit equals its Additional Cost (MC). So,  **$MC = MR$** .
- Further, the **MC Curve should cut the MR Curve from below** (and not from above). This is so because, upto this point  $MR > MC$ , hence there is an incentive for further production. Beyond this point,  $MC > MR$ .
- This position (i.e. where  $MC = MR$ , and MC cuts MR from below) is called **Equilibrium position** for the Firm.
- Thus, Note: For achieving Equilibrium Position, the conditions to be satisfied are — **$MC = MR$ , and MC Curve should cut MR Curve from below**, i.e. MC should have +ve slope.
- Merely being in Equilibrium position does not mean that the Firm is making profits. The actual position of



Situation	Interpretation
If $AR > AC$	The Firm makes <b>super—normal profits</b> , i.e. over and above normal profits.
If $AR = AC$	The Firm makes <b>normal profits</b> , since AC includes normal profits.
If $AR < AC$	The Firm makes <b>losses</b> , but it need not shut down in the short—run. <b>(See Para C.5) Note:</b> Here, Loss means <b>Economic Loss</b> , and not Loss as per Books of Accounts.

profits can be known only on the basis of AR and AC Curves



# Chapter 4 - Meaning and Types of Market



## A. Market basics

### Meaning:

- 1) Market is a **place where Buyers and Sellers meet and bargain** over a commodity for a price.
- 2) Also, market can be defined simply as all those **buyers and sellers** of a good or **service who influence price**.

**Elements of a Market:** The elements of a Market are-

- 1) Buyers and Sellers,
- 2) Product or Service,
- 3) Bargaining for a Price,
- 4) Knowledge about market conditions, and
- 5) One Price for a Product or Service at a given time.



## B. Types of Market

The Market Structures analysed in Economics are --

Perfect Competition	Monopoly:	Monopolistic Competition	Oligopoly	Monopsony-
Many Sellers selling identical products to many Buyers.	Single Seller producing differentiated products for many Buyers.	Many Sellers offering differentiated products to many Buyers.	A Few Sellers selling competing products to many Buyers.	Single Buyer of a product or service.
				

### Other forms of the market are

1. **Duopoly-** Duopoly is a market situation in which there are only two Firms in the market. It is a sub-set of Oligopoly.
2. **Oligopsony-** Oligopsony is a market characterized by a small number of large buyers.
3. **Bilateral Monopoly-** It is a market structure in which there is only a Single Buyer and a Single Seller. Thus, it is a combination of Monopoly Market and a Monopsony Market

**Classification of Market:**

Markets are generally classified into-

- Product markets**- markets for goods and services in which households buy the goods and services they want from firms. Product markets allocate goods to consumers,
- Factor markets**- those in which firms buy the resources they need - land, labour, capital and entrepreneurship- to produce goods and services. Factor markets allocate productive resources to producers. The prices in factor markets are known as factor prices.

Area	Time	Nature of Transaction	Regulation	Volume of Business	Types of Competition
Local market	Very Short period- Also Known as <b>MARKET PERIOD</b>	Spot Market	Regulated Market	Wholesale market	Perfectly competitive
Perishable and Bulky Goods	Market for Flower, fish etc. Supply is Fixed				
Regional Market	Short period	Future Market	Unregulated Market	Retail Market	Imperfectly Competitive
Kolhapuri Chappal					
National Market	Long Period				
Hindi books					
International Market	Very long/ <b>Secular Period</b>				
High Value Small Bulk					

*Alfred Marshall conceived the 'Time' element in markets and on the basis of this, markets are classified into*

**Do You Know??**

- Difference between 'value in use' and 'value in exchange'.
  - Value in use refers to usefulness or utility i.e the attribute which a thing may have to satisfy human needs.
  - Value in exchange or economic value is the amount of goods and services which we may obtain in the market in exchange of a particular thing. It is measured by the amount someone is willing to give up in other goods and services in order to obtain a good or service.
- In Economics, we are only concerned with exchange value. Considerations such as sentimental value mean little in a market economy

### C. Perfect Competition

#### Features of Perfect Competition

1. Large number of Buyers & Sellers
2. Sellers offer Homogeneous/ identical Products
3. No individual Buyer or Seller will be in a position to influence the demand or supply in the market.
4. Firm is free to enter the market or to go out of market.
5. There is a perfect knowledge, on the part of Buyers and Sellers.
6. There are adequate facilities for the movement of goods from one center to another
7. All Firms individually are Price Takers. Because-

If he lowers the price

---



---



---



---

and if he increases the price

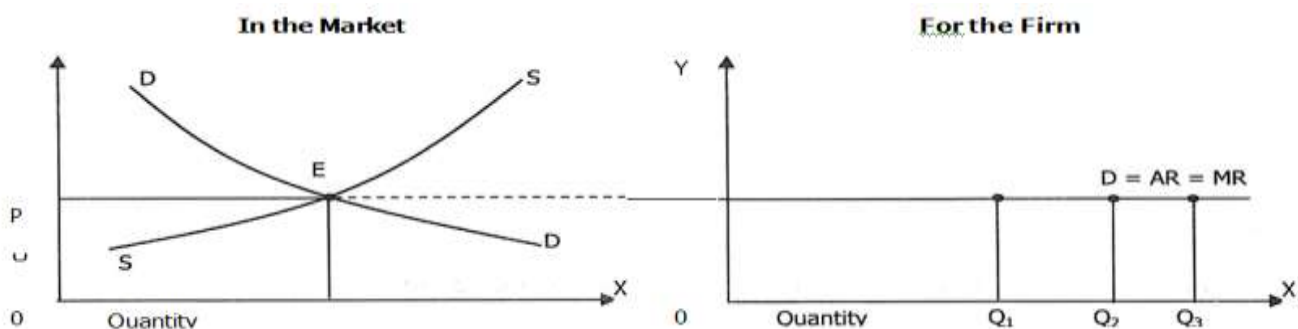
8. The goods are dealt on at a uniform price throughout the market
9. Buyers have no preference as between different Sellers
10. Sellers are indifferent as to whom they sell
11. There is perfect mobility of factors of production.

Why? \_\_\_\_\_

12. Perfect Competition is a MYTH

#### How Demand Curve is determined

1. In Perfect competition there is Uniform Market Price
2. All the firms are Price Taker and same price prevails in the market.
3. Price Elasticity of Demand is infinity.
4. Hence, the Equilibrium Price determined by Market Demand and Supply forces, constitutes the Demand Curve for the Firm. This Price is also the Average Revenue (AR).
5. and Marginal Revenue (MR) for the Firm, since the price is uniform in the market. So, in Perfect Competition,  $D = AR = MR = Price$





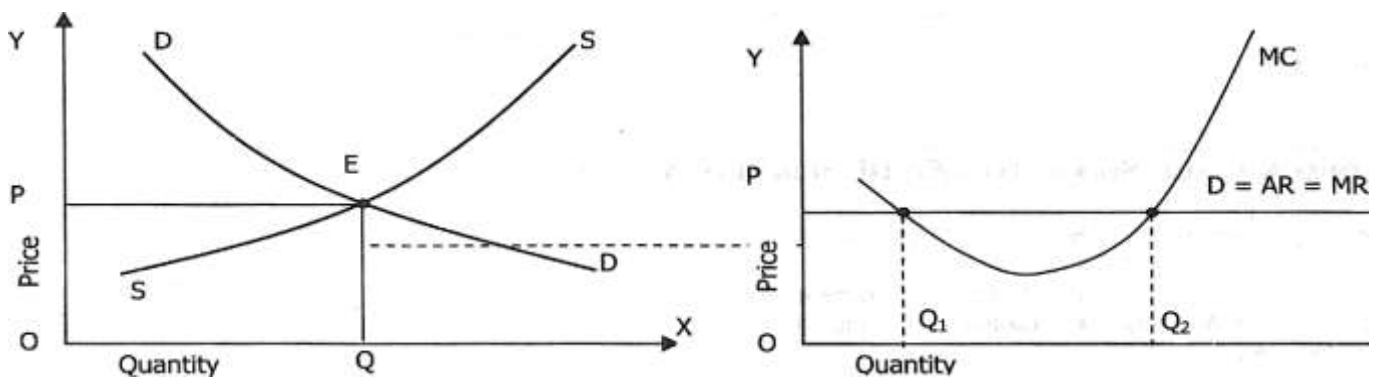
## Quick Recap

Draw MC curve		Draw demand/Average Revenue/ Marginal revenue curve	
Draw Average cost curve		Draw short run equilibrium price curve in Market	

## Short Run price determination, Optimum output/Equilibrium and profit Determination

For achieving **Equilibrium**, the conditions to be satisfied are –

1.  $MC = MR$ , and
2. MC Curve should cut MR Curve from below, i.e. MC should have positive slope.

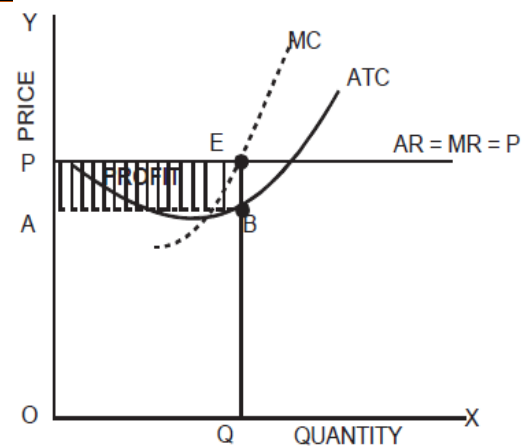


## For Profit determination

1. Merely being in **Equilibrium position** does not mean that the Firm is making **profits**. The actual position of profits can be known only on the basis of **AR and AC** Curves.
2. In the short run, a firm may earn supernormal profits, normal profits or losses depending upon its cost conditions.

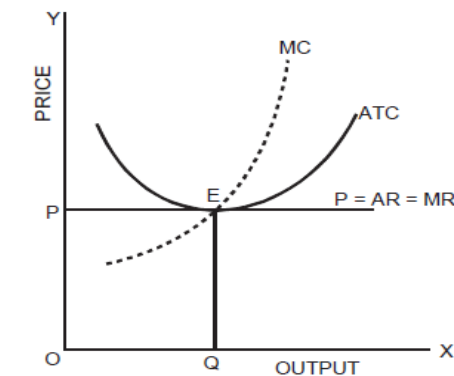
**Super profits/ Economic Profits/ abnormal profits and super normal profits:**

- When a firm earn super normal profits its **Average revenue are more than average total cost** or,
- $AR > ATC$ .



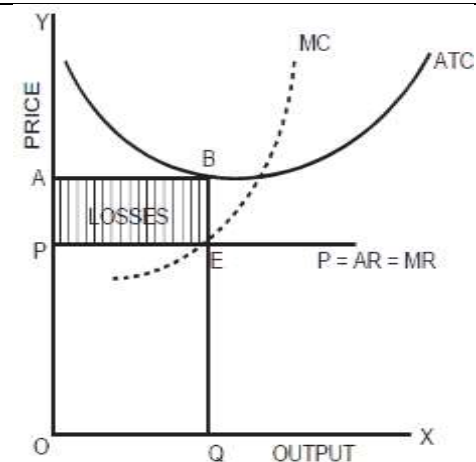
**Normal profits:**

- When the firm **just meets its average total cost**, it earns normal profits
- Normal profit is normal rate of return on capital and the remuneration for the risk bearing function of the entrepreneur.
- Here  $AR = ATC$ .
- It is also called **B.E.P (Break-even-Point)** means No Loss No Profit.
- It is called **Marginal Firm**.



**Losses:**

- A firm may incur losses if  $AR < ATC$ .
- At losses the firm shall cover at least its variable cost. IF variable cost is covered Max loss will be = FC or part of it
- If firm is unable to meet its variable cost, it will be better for it to shut down.



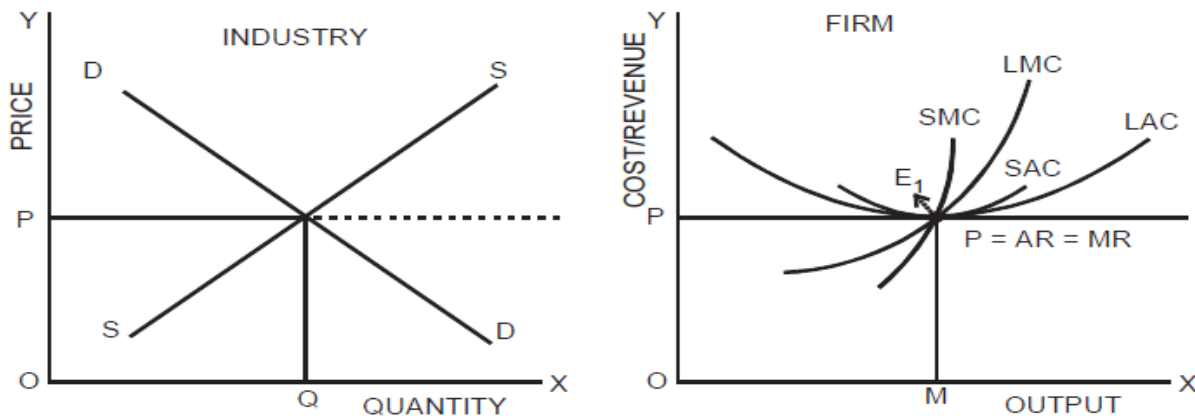
**Shut Down point:**

- A Firm will shut down, if  $AR < AVC$ , at a point where  $MC = MR$  (MC cutting from below).

In perfect competition firm, MC curve above AVC is considered the supply curve

## Long - run Equilibrium of a firm under Perfect Competition.

In the Long run the firms will be earning just **NORMAL PROFITS**.



In the above figure industry has decided the price 'P' and firm has taken over the same price at the same time firm is earning just normal profits.

In the long run, following conditions are satisfied: **The Firm is called as Optimal Firm**

- The output is produced at the **minimum feasible cost or minimum LAC**
- Consumers pay the **minimum possible price** which just covers Marginal cost =  $MC = AR = P$
- Full utilization of plants is possible,  $MC = AC$
- There is no wastage of resources. **optimal allocation**
- Firms earn **only normal profits i.e.  $AC = AR$** .
- Firms maximize profits i.e.  $MC = MR$ , but level of profits will be normal.
- There are Optimum Number of firm in Industry
- In the long run  **$LMC = LMR = P = LAR = LAC = SMC = SAC$**
- **When LAC falls  $LAC > LMC$  and when LAC raises  $LMC > LAC$ .**

### Long Run Equilibrium in the Industry

The **Industry** is said to have attained **long—run equilibrium** when —

1. All the Firms are earning normal profits only, i.e. all the Firms are in long—run equilibrium, and
2. There is **no further entry or exit of Firms** to / from the market.



**Question 1: What can be the profit/ loss condition in long run in Perfect competition?**

Answer: \_\_\_\_\_  
 \_\_\_\_\_

**Question 2: Why not Super- Normal profit?**

Answer- Super profit will attract new firms>>>> Supply will increase>>>>>>>>>> Market Price will fall>>>>>>>> upward shift of Cost Curves>>>>>>>> super profit will be wiped out

**Question 3: Why Not Losses?**

Answer- Existing Firms will leave the industry >>>>>reduction in supply>>>>>>>> increase in Market Price>>>>>>>>Cost Curves may fall>>>>>>>>loss will be recovered

**Relationship between AR, MR, TR and Price Elasticity of Demand**

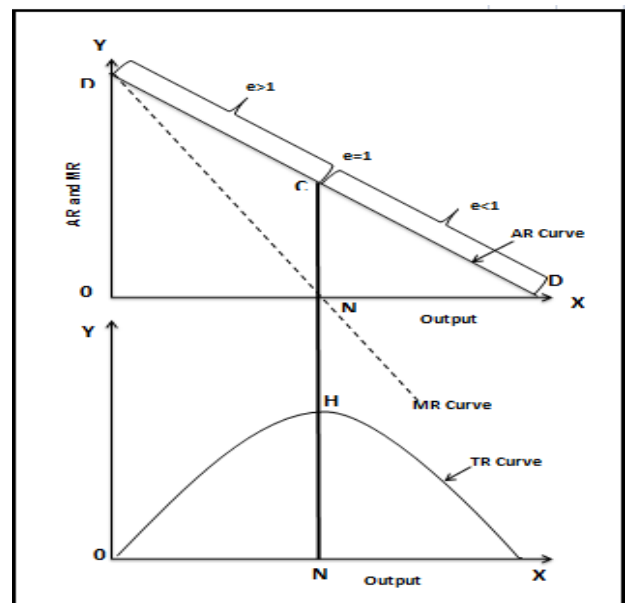
It is to be noted that marginal revenue, average revenue and price elasticity of demand are uniquely related to one another through the formula:

$MR = AR (e-1)/e$

e = elasticity

Thus when

- i.  $e > 1$ , MR is positive
- ii.  $e = 1$ , MR = 0
- iii.  $e < 1$ , MR is Negative



**Behavioral Principal**

1. Principle 1- A firm should not produce at all if its total variable costs are not met.
2. Principle 2 - The firm will be making maximum profits by expanding output to the level where marginal revenue is equal to marginal cost.

## D. Monopoly

### i. Features of Monopoly

- a) Single Seller
- b) Firm = Industry
- c) Entry Restrictions- (i) economic, (ii) institutional, (iii) legal, or (iv) artificial.
- d) No substitutes. - Cross Elasticity of Demand for the Monopolist's Product and any other product is \_\_\_\_\_
- e) Elasticity of demand- Price Elasticity of Demand for Monopolist's Product is less than one.
- f) Monopolist is a Price—Maker, not a Price—Taker.
- g) Imperfect Mobility due to fewer substitutes.
- h) May or May not be optimal Firm



### ii. Why Monopoly exists?

Monopoly is caused by "barrier to entry". Some reasons for occurrence of Monopoly are -

1. **Strategic Control** over scarce resources
2. **Control over a unique product**.
3. **Patents and Copyrights**
4. Governments granting **exclusive rights**
5. **Substantial Goodwill**
6. **Natural Monopoly** e.g. Natural Gas Supply, Electrical Power Distribution, etc.
7. **Stringent Legal and Regulatory Requirements**
8. Very **high initial start—up costs**
9. Use of **Anti—Competitive Practices** or Predatory Tactics.
10. Business Combinations or **Cartels**

### iii. Note:

*In the practical world, Monopolies are either regulated or fully prohibited. Hence, Pure Monopolies are not common. However, a single Producer may dominate the supply of a good or group of goods. In Public Utilities, e.g. Transport, Water, Electricity Generation, etc. Monopolistic Markets existed earlier in India, so as to reap the benefits of large scale production. But these markets have now been deregulated and opened to competition. In India, Indian Railways has monopoly in Rail Transportation. Government has monopoly in Nuclear Power production.*

**iv. Negative Effects of Monopoly-**

1. **Higher Prices** for Consumers,
2. Loss of Consumer Surplus,
3. **Inability of Consumers to substitute** the goods or services, with a more reasonably priced alternative,
4. Transfer of Income from Consumers to Monopolists,
5. **Restriction of Consumer Sovereignty** and reduction in opportunities for Consumers to consume goods they desire,
6. **Payment of lower prices by Monopolies to their Suppliers** (of goods and services), i.e. lower Factor Payments,
7. **Lower levels of Output**, that what would be produced in a competitive environment,
8. Ability of Monopolist to **influence political process** and thereby obtain a favourable legislation,
9. **Lack of Innovation**,
10. **Higher Costs of Output**, the burden of which will be shifted to Consumers
11. **Lack of Productive and Allocative Efficiency**,
12. **Possibility of misuse of scarce resources**,
13. Earning of Economic Profits (**above Normal Profits**) in the long run, which is unjustifiable,
14. Use of Monopoly Power to create barriers to entry by undue means,
15. Scope for **X—Inefficiency**, i.e. the difference between efficient behaviour of businesses assumed or implied by economic theory and their observed behavior in practice caused by a lack of competitive pressure, etc.

**v. Determination of Demand/ Revenue curve**

Qty (Q)	Price	TR = P×Q	AR = TR/Q	MR	Diagram
1	22	22	22	22	
2	20	40	20	18	
3	18	54	18	14	
4	16	64	16	10	
5	14	70	14	6	
6	12	72	12	2	
7	10	70	10	-2	
8	8	64	8	-6	
9	6	54	6	-10	
10	4	40	4	-14	

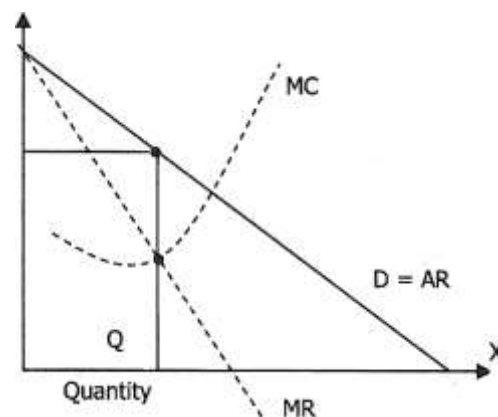


1. It shall be noted that **price elasticity of DD was infinite in Perfect competition** thus the DD curve was **parallel to Quantity axis**.
2. **In Monopoly**, the monopolist in order to increase his sale may lower the price. Thus the elasticity exists. However since there is no Close substitute, the **DD curve is Flatter as compared** to that in Monopolistic competition
3. Firm's Demand Curve = Average Revenue (AR).
4. **Relationship between AR & MR under Monopoly:**
  - a) Both AR and MR are **negatively sloped** (downward sloping) curves.
  - b) MR Curve **lies half-way between the AR Curve and the Y-axis**, i.e. it cuts the horizontal line between Y axis and AR into **two equal parts**.
  - c) In other words, Slope of MR is twice of AR
  - d) **AR cannot be zero, but MR can be zero or even negative**.

**vi. Short Run price determination, Optimum output and profit Determination**

a. **For achieving Equilibrium**, the conditions to be satisfied are-

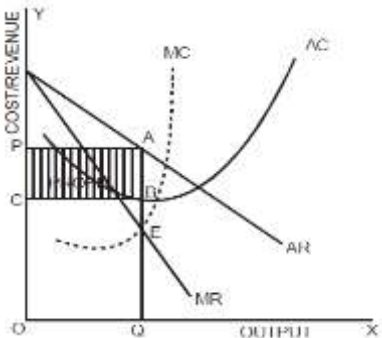
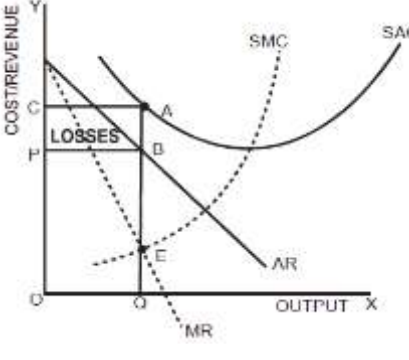
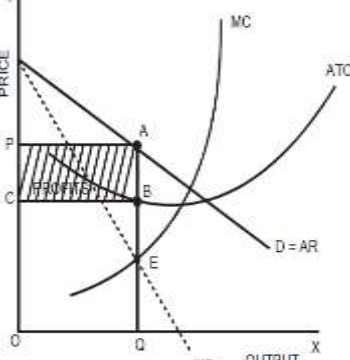
1.  $MC = MR$ , and
2. MC Curve should cut MR Curve from below, i.e. MC should have positive slope.



b. **For Profit determination**

1. Merely being in **Equilibrium position does not mean** that the Firm is making **profits**. The actual position of profits can be known only on the basis of **AR and AC** Curves.
2. In the short run, a firm may earn supernormal profits, normal profits or losses depending upon its cost conditions.

Short Run Positions		Long Run Positions
<p><b>Super profits:</b></p> <ul style="list-style-type: none"> <li>• Here, <math>AR &gt; ATC</math>.</li> <li>• Here area PABC denotes super profit.</li> </ul>	<p><b>Losses:</b></p> <ul style="list-style-type: none"> <li>• Here, <math>AR &lt; ATC</math>.</li> <li>• The Shaded area PBAC denotes Loss</li> </ul>	<p><b>Only Super profit (<math>LAR &gt; LAC</math>):</b></p> <ul style="list-style-type: none"> <li>• Monopoly firm in the long run gets <b>abnormal profits</b> because, the new firms are not <b>allowed to enter the market</b>.</li> <li>• Under long-run a monopoly firm can produce at <b>optimal or sub-optimal level</b>.</li> <li>• In other words it can</li> </ul>

		produce at minimum LAC curve and also he can produce before or after the minimum LAC curve.
		

## Price Discrimination

### 1. Meaning:

- a) Price Discrimination occurs when a Producer sells a commodity to different Buyers, at different prices, for reasons not related to differences in cost.

### 2. Objectives:

- To earn Maximum Profit
- To Dispose of Surplus stock
- To enjoy Economies of Scale
- To capture foreign markets
- To secure equity thorough pricing.

### 3. Examples:

- Doctors** may charge more from a rich patient than from a poor patient, for the same treatment.
- Electricity Rates** for home consumption are less than that for industrial use.
- Export Prices** of Products are cheaper than the domestic market selling price.
- Railways charge** different rates from different type of passengers e.g. AC, Non-AC, Tatkal, etc.

### 4. Conditions for Price discrimination

- Full control over supply of commodity**
- Division of market into two or more sub-markets:** A seller can practice price discrimination only when he is able to divide the markets into two or more sub-markets.
- Different price elasticity under different markets:** Monopolist charge higher price from that market whose price elasticity is less than one and can charge lower price from that market whose price elasticity is greater than one.
- No possibility to resale:** It should not be possible for the buyers of low-priced market to resell the product to the buyers of the high priced market

## Degrees of price Discrimination

Prof. Pigou classified three degrees of price discrimination.

- a. **First degree price discrimination**, the monopolist separates the market into each individual consumer and charges them the price they are willing and able to pay and thereby extract the entire consumer surplus.

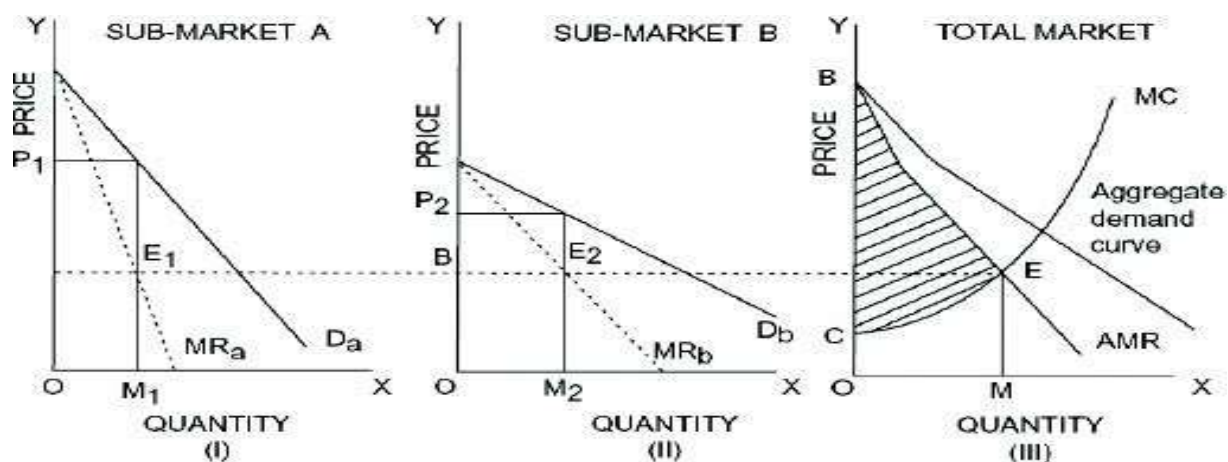
Eg. Doctors, lawyers, consultants etc., charging different fees, prices decided under 'bid and offer' system, auctions, and through negotiations are examples of first degree price discrimination.

- b. **Second degree price discrimination**- different prices are charged for different quantities of sold. The monopolist will take away only a part of the consumers' surplus. The two possibilities are: a) Different consumers pay different price if they buy different quantity. b) Each consumer pays different price for consecutive purchases.

- c. **Third degree price discrimination** - price varies by attributes such as location or by customer segment. Here the monopolist will divide the consumers into separate sub-markets and charge different prices in different sub-markets. Examples: Dumping, charging different prices for domestic and commercial uses, lower prices in railways for senior citizens, etc.

## Equilibrium under price discrimination

- a. Under simple monopoly, a single price is charged for the whole output; but under price discrimination the monopolist will charge different prices in different sub-markets.
- b. First of all, the monopolist has to divide his total market into various sub-markets on the basis of differences in elasticity of demand.



In order to reach the equilibrium position, the discriminating monopolist has to make three decisions:

- How much total output should he produce?
- How the total output should be distributed between the two sub-markets? And
- What prices he should charge in the two sub-markets?



### E. Monopolistic Competition

1. Imperfect competition is found in the industry where there are a large numbers of small sellers, selling differentiated but close substitutes products. E.g. LUX, HAMAM, LIRIL etc.

This market contains features of both competitive and monopoly markets.



2. Large number of sellers and buyers

3. Free entry and exit of firms.

4. Product differentiation:

5. Non price competition:

6. Every firm is price maker and price taker of his own product

7. Imperfect mobility:

8. **AR and MR:** In monopolistic competition AR/MR will be more elastic than monopoly market.

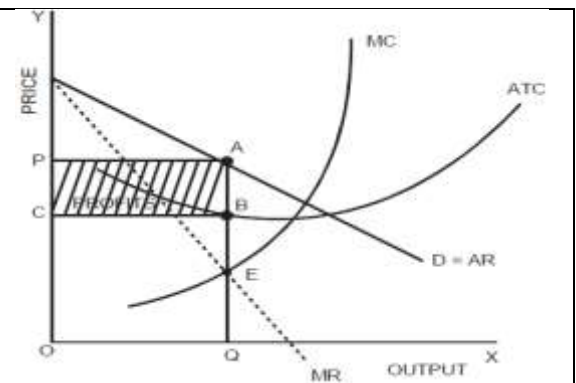
Determine Condition for Equilibrium

1. \_\_\_\_\_
2. \_\_\_\_\_

### Short Run Equilibrium

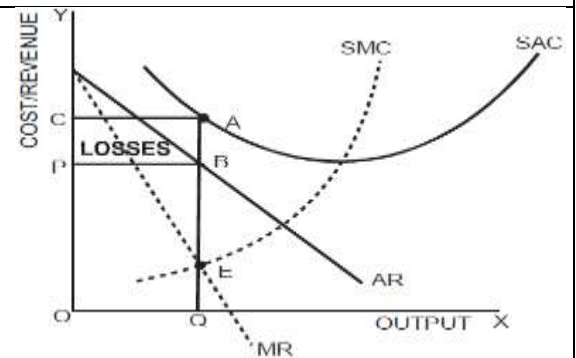
#### Super profits-

- To earn super profits  $AR > ATC$ .
- Normal profit is equal to the area PABC.



#### Losses:

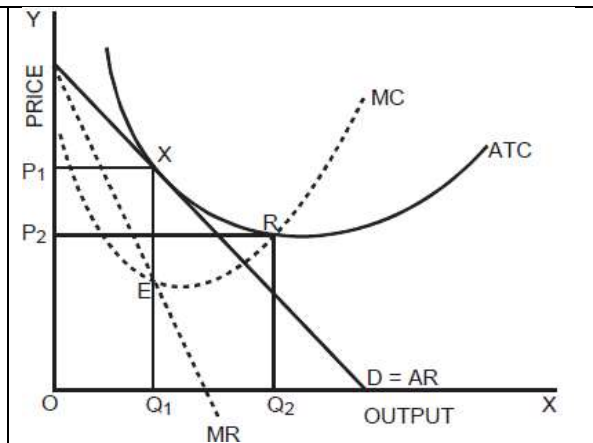
- But if the  $AR < AC$  then firm will incur losses.
- In the figure given Shaded area PABC denotes loss.



## Long Run Equilibrium

### Normal profit (LAR = LAC/ TAC)

1. In long Run the firm will earn **normal profits**, because there is free entry and exit of firms.
2. The AR curve in the long-run is not tangent to the ATC curve at the lowest point.
3. This shows each firm produces at before the lowest TAC/LAC or **produces less than the optimum output** and Charges from the customers a price higher than the competitive price.
4. A firm under monopolistic petition has **always excess capacity** and thus is never an optimum firm, but perfect competition never has excess capacity and monopoly mayor may not be



## F. OLIGOPOLY MARKET

**Meaning-** An oligopoly is a market in which there are **few producers (two to ten)** of a product.

- ✓ Oligopoly is an important form of imperfect competition.
- ✓ Sellers sell homogeneous or differentiated but close substitutes products
- ✓ Example- cold drinks industry or automobile industry.
- ✓ It shows the concept of group behaviour
- ✓ There is large entry barrier



### Types of Oligopoly

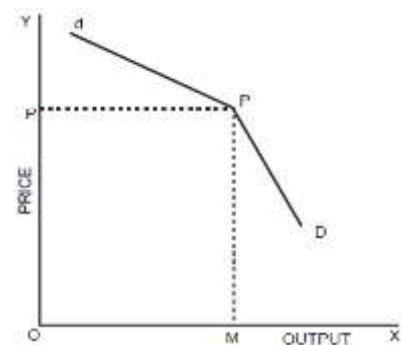
1. **Pure / Perfect oligopoly** - deals in homogeneous products- Aluminum industry
2. **Differentiated / imperfect oligopoly** - deals in product differentiated.
3. **Open oligopoly** - New firms can enter the market and compete with existing firms
4. **Closed oligopoly** - new entry is restricted.
5. **Collusive oligopoly** - common understanding or collusion in fixing price and output
6. **Competitive oligopoly** - Lack of understanding and compete with each other.
7. **Partial oligopoly** - when industry is dominated by one large firm i.e. price leader
8. **Full oligopoly** - absences of price leadership.
9. **Syndicated oligopoly**- Firms sells their products through centralized syndicate/ channel
10. **Organized oligopoly**: Firms organize into a central association for fixing price, output etc.

## Features

- **Few sellers**
- **Interdependence:** In oligopoly, firm must consider the market demand and the reactions of the firms in the industry to any major decision it takes.
- **Advertising and selling costs (Non price competition):** There is a great importance advertising and selling costs in an oligopoly market. They avoid price cutting and try to compete on non-price basis
- **There is no generally accepted theory of group behaviour.** In oligopoly, the members of a group agree to pull together in promotion of common interest or they fight to promote their individual interests.
- **Substantial barriers to entry:** In oligopoly there is no free entry and no blocked entry, we can say that there is substantial barriers to the entry.

## Kinked demand curve / Indeterminateness of demand curve-

1. Because interdependence of the firms in oligopoly and because of inability of a particular firm to pre the behaviour, the demand curve facing an oligopolist may have a 'kink' at the level of the prevailing suggesting stickiness in the price level.
2. The kink is formed at the prevailing price level at because the segment of the demand curve above the 'K' is highly elastic and the below the 'K' is inelastic.



### 3. Price rigidity:

- a) **When an oligopolist lowers the price-** its competitors will feel that, if they do not follow the price cut their customers will run away and buy from the firm, which has lowered the price. Thus in order to maintain their customers they will also lower their prices. **Thus the upper portion of the demand curve is price elastic.**
- b) **When firm increases the price-** there will be a substantial reduction in its sales because as a result of the rise in its price, its customers will withdraw from it and go to its competitors, which will welcome the customers and will gain in sales. These happy competitors will have, therefore, no motivation to match the price rise.



## Summary of Different Market

Aspect	Perfect Competition	Monopoly	Monopolistic Competition	Oligopoly
Number of Sellers	Very large	Only One	Large	A Few
Nature of Product	Homogeneous / Identical Product. No differentiation.	Highly differentiated / specialized product.	Slightly differentiated / specialized product.	Nature of Differentiation varies.
Product differentiation	None	Extreme	Slight	None to substantial
Ease of Entry / Exit	Free Entry / Exit.	Only One Seller.	Free Entry / Exit.	Only Few Sellers.
Control over Price	Nil	<b>Total</b>	Each Firm is a <b>Price-Maker</b> for its own product.	<b>Reasonable.</b>
Elasticity of Demand	Infinity.	Less Elastic.	More Elastic.	Kink
Demand Curve	Horizontal Line.	Negatively Sloped	Negatively Sloped.	Kinked Curve.
Examples	Foodgrains, Vegetables, etc.	Railways, Electricity Supply.	Cars, Soaps, Toothpaste, etc.	Pharma, Cold Drinks, etc.
Profit in Long—Run	Normal Profits Only.	Super—Normal Profits	Normal Profits Only.	—
Optimality in Long—Run	Each Firm is an Optimal Firm.	Can operate at sub-optimal level also.	Idle Capacity. Not an Optimal Firm.	—

# Chapter 5 - Business Cycle



## A. Meaning, Phases of Business cycle

- ✿ **Fluctuations in aggregate economic activity** that an economy experiences over a period of time, i.e. periods of prosperity alternating with periods of economic downturns, are called **Business Cycles** or **Trade Cycles**.
- ✿ Business Cycles refer to **alternate expansion and contraction of overall business activity** as reflected in fluctuations in measures of aggregate economic activity, like Gross National Product, Employment and Income.
- ✿ **Phases:** The four distinct phases of the Business Cycle are-
  - a) **Expansion** / Boom / Upswing),
  - b) **Peak** / Prosperity,
  - c) **Contraction** / Downswing / Recession), and
  - d) **Trough** / Depression).
- ✿ A Trade Cycle is composed of periods of
  - a) **Good trade** characterized by rising prices and low unemployment levels.
  - b) **Bad trade** characterized by falling prices and high unemployment levels.



## B. Features of Business cycle

- a) Business cycles **occur periodically**
- b) **Do not exhibit the same regularity.**
- c) The **duration** of these cycles **vary**.
- d) The **intensity** of fluctuations also **varies**.
- e) The **length of each phase is also not definite**.
- f) Business cycles are **exceedingly complex phenomena**;
- g) Business cycles generally originate in free market economies\*\*\*\*\*.
- h) They are **pervasive** as well. Disturbances in one or more sectors get easily **transmitted to all other sectors**.
- i) Although all sectors are adversely affected by business cycles, some sectors such as



- capital goods industries, durable consumer goods industry** etc, are disproportionately affected.
- j) Moreover, compared to agricultural sector, **the industrials sector is more prone to the adverse effects of trade cycles.**
- k) It is **difficult to make an accurate prediction** of trade cycles before their occurrence.
- l) Repercussions of business cycles get simultaneously felt on nearly all economic variables
- m) Business cycles have **serious consequences on the well-being of the society.**
- n) Business cycles are **contagious and are international in character.**

## C. Phases of Business cycle

### 1. Expansion: Features

- a) Increase in **national output, employment, aggregate demand, capital and consumer expenditure, sales, profits, rising stock prices and bank credit.**
- b) This state **continues till there is full employment of resources and production is at its maximum** possible level using the available productive resources.
- c) Involuntary unemployment is almost zero and whatever unemployment is there is either frictional or structural. Prices and costs also tend to rise faster. Good amounts of net investment occur.
- d) Increasing prosperity and people enjoy high standard of living due to high levels of consumer spending, business confidence, production, factor incomes, profits and investment.
- e) The growth rate **eventually slows down and reaches its peak.**



### 2. Peak:

- a) Peak refers to the **top or the highest point** of the business cycle.
- b) Output prices also rise rapidly leading to increased cost of living and greater strain on fixed income earners.
- c) **Actual demand stagnates.**



### 3. Contraction:

- a) During contraction, there is **fall in the levels of investment and employment.**
- b) **Supply far exceeds demand.** Initially, this happens only in few sectors and at a slow pace, but rapidly spreads to all sectors.
- c) **Producers hold back future investment** plans, cancellation and stoppage of orders for equipment and all types of inputs including labour.
- d) **Decrease in input demand** pulls input prices down; incomes of wage and interest earners



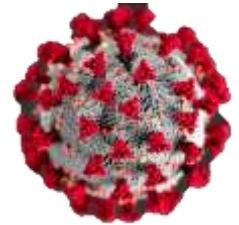


gradually decline resulting in decreased demand for goods and services.

e) The process of recession is complete and **economy into the phase of depression.**

#### 4. Trough and Depression:

- Depression is the **severe form of recession** and is characterized by **extremely sluggish economic activities.**
- During this phase of the business cycle, **growth rate becomes negative**
- National income and expenditure declines rapidly.
- Demand for products and services decreases, prices are at their lowest and decline rapidly forcing firms to **shutdown several production facilities.**
- A typical feature of depression is the **fall in the interest rate.**
- Large number of bankruptcies and liquidation** significantly reduce the magnitude of trade and commerce.
- Greatest depression occurred in 1929- 1933 - Reason lower aggregate Expenditure**



#### D. Question: How does the economy recover?

The economy cannot continue to contract endlessly. Economic activity reaches Trough and then starts **recovering** >>>> marks the end of pessimism and the beginning of optimism >>>> Reversal is first felt in the **Labour Market** >>>> workers accepts wages lower than the prevailing rates. >>>> **Business Confidence** slowly increases, >>>> spurring of investment causes **recovery** of the economy. >>>> **Banking System** now slowly starts expanding credit, matching with the business confidence. >>>> Employment, Factor Payments, Disposable Incomes, Consumer Spending, Aggregate Demand, etc. all rises



#### E. Indicators- 3 Indicators ( Leading, Lagging, concurrent)

##### 🌿 Leading Indicators:

- ✚ It is a measurable economic factor that changes before the economy starts to follow a particular pattern or trend. **Variables that change before the Real Output changes**
- ✚ However, Indicators are not always accurate and Experts disagree on the timing of these Leading Indicators.
- ✚ Eg. -Change in stock price, profit Margin, Indices, housing interest rate, prices, value of new orders of plant and machinery/ consumer goods, building permits of private house



### 🌿 Lagging Indicators:

- ⚡ Changes in these indicators are observable **only after** an economic trend or pattern has already occurred. **variables that change after the Real Output changes**
- ⚡ E.g. - Unemployment, corporate profit, labour cost per unit, interest rate, Consumer price index, Commercial Lending



### 🌿 Coincident or Concurrent Indicators:

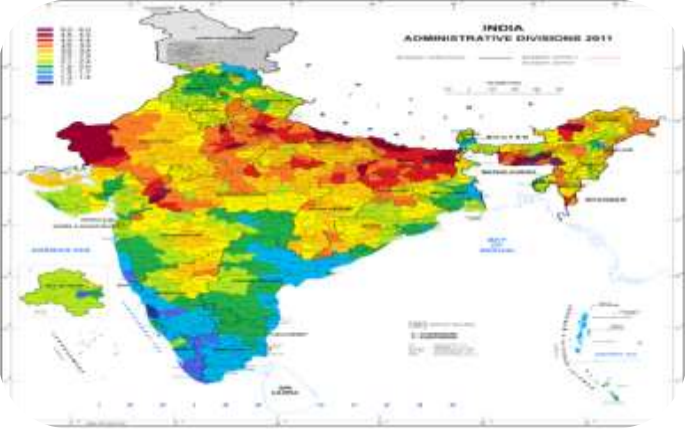

- ⚡ It **coincides or occurs simultaneously** with the business—cycle movements.
- ⚡ It gives information about the rate of change of the expansion or contraction of an economy more or less at the **same point of time** it happens.
- ⚡ It describes current state of Economy
- ⚡ E.g. - GDP, Industrial productions, Inflation, personal Income, Retail Sales, Stock Market prices



## F. Role/ Importance of Business cycle in Business Decision making

1. **Demand Impact:** Business Cycles affect demand of the products.
  2. **Decision** regarding Expansion of business.
  3. **Policies:** Knowledge of Business Cycles and their inherent characteristics is important for a Business Firm to frame appropriate policies.
  4. **Production Aspects:** Businesses have to properly respond to the need to alter production levels relative to demand.
  5. **Market Entry / Product Launch:** The phase of the Business Cycle is important for a new business to decide on entry into the market.
6. **Cyclical Businesses:**
- ❖ Some businesses are more vulnerable to changes in the Business Cycle than others.
  - ❖ Businesses whose fortunes are closely linked to the rate of economic growth are called "Cyclical" Businesses. Examples: House—Builders, Construction, Infrastructure, Restaurants, Advertising, Overseas Tour Operators, Fashion Retailers, etc.
  - ❖ During a boom, such businesses see a strong demand for their products but during a slump, they usually suffer a sharp drop in demand.
  - ❖ Some Businesses may actually benefit from an economic downturn, e.g. when their products are perceived by Customers as representing good value for money, or a cheaper alternative compared to more expensive products.

## G. Causes of Business Cycle

H. Internal causes- Endogenous factor	I. External Causes- Exogenous factor
Internal causes of Business Cycle are those cause which are generated <u>within the NATION</u> itself and are <u>not international in character</u>	External causes of Business Cycle are those cause which are generated <u>out of the NATION</u> and are <u>international in character</u>
✚ Fluctuations in Effective Demand	✚ Wars
✚ Fluctuations in Investment- According to some economists this the primary cause of Business Cycle	✚ Post War Reconstruction
✚ Variations in government spending	✚ Technology shocks
✚ Macroeconomic policies	✚ Natural Factors
✚ Money Supply	✚ Population Growth
✚ Psychological factors	
	

### 5. Some important Points for MCQ

- a) **According to Pigou**, modern business activities are based on the anticipations of business community and are affected by waves of optimism or pessimism.
- b) **According to Schumpeter's innovation theory**, trade cycles occur as a result of innovations which take place in the system from time to time.
- c) **The cobweb theory propounded by Nicholas Kaldor** holds that business cycles result from the fact that present prices substantially influence the production at some future date.
- d) **According to Hawtrey**, trade cycle is purely Monetary Phenomenon



# Chapter -6 National Income Fast Track/ Marathon

## National Income: Basics

- a) National Income measure **short-run performance of an economy**.
- b) National income gives us an idea of the working of an economy .
- c) National income accounts provide a **comprehensive, conceptual and accounting framework**.
- d) National Accounts help us to understand **how the various transactions from the stage of production of goods and services to the stage of their final disposal are interrelated**.
- e) It helps to meet the needs of **Government, private analysts, policy makers and decision takers**.
- f) National Income Accounting was pioneered by the Nobel prize-winning economists **Simon Kuznets and Richard Stone**
- g) The task to measure National Income is undertaken by **Central Statistical Organization (CSO)**, a department of The **Ministry of Statistics and Programme Implementation (MoSP&I)**
- h) At the State level, **State Directorates of Economics and Statistics (DESs)** have the responsibility of compiling their State Domestic Product and other aggregates.

## Distinguish between Non-economic activities and economic activities

1. Economic Activities- Goods and services that **can be purchased / exchanged with money**.
2. Non-economic activities are those which **produce goods and services but are not exchanged** in a market.

## What is the national Income ?

National Income is defined as money value<sup>1</sup> of final goods and services<sup>2</sup> produced by the normal residents<sup>3</sup> of a country, whether operating within the domestic territory<sup>4</sup> of the country or outside produced within in an accounting year<sup>5</sup>.

### a. Expressed in Money Value-

- \* It becomes necessary to measure their value against **some commonly accepted denominator**.
- \* Thus, money being the measuring rod.

### b. Final Value of Goods and services-

1. **Value final goods and services** are included to avoid double counting.
2. **Intermediate goods are those goods and services which are used by producers as input into further stage of production**

**The final products are of two types- Consumer Goods and Services and Producer Goods-**

1. **Consumer Goods-** Where the goods and services are used for final consumption by the consumer, it is called as Consumer Goods and services.  
E.g. - TV, Food, Home appliances.

2. **Producers Goods-** Where the final product is used in production of other goods/ service in future, it is called as Producers goods.

E.g. Computer used for developing programs or software, Plant and Machinery used in manufacturing of goods

**c. Normal resident-**

1. **Normal resident** of a country refers to an individual or an institution who ordinarily resides in the country and whose center of **economic interest** also lies in that country.

2. **Normal residents** include both, **individuals and institutions**.

3. Here the word '**Resident**' is used and not the word 'Citizen'. Hence, they may or may not be citizen of that country

**d. Domestic territory:**

1. Domestic territory refers to **geographical or political boundary** of country.

2. It however does not include- **international institutional** (United nations, WHO, WTO) and **foreign embassies** located within geographical territory but includes embassies of this country located outside its geographical territory

3. **Indian Ship and Indian aircrafts** performing operations outside country is also included in domestic territory.

**e. Current output:**

While calculating National income value of only current production is included, this is because the value of previous year's production is included in Previous year's National Income.

**National income does not include the following transactions:**

1. **Pure purchase transaction** such as **sale and purchase of used goods/ second- hand goods**, this is because nothing new is produced in the current year.

However, where the goods are refurbished the added value must be taken in calculation of National Income.

2. **Sale, purchase of securities** is also excluded because it is just a change of ownership.

3. **Transfer payments** are included as there is no economic activity involved. E.g Pocket money by Parents, Gift to Son in law.

**Transfer Payment-**

1) Transfer payments are unilateral payments for which no productive services are rendered in return in the **current year**.

2) The recipient of this transfer payment **does not make any contribution to current production** in return for these payments

3) E.g Pension is given to a person in C.Y for rendering services in past, Unemployment allowance.

**There are two types of transfer payments Viz. Current transfer and Capital transfer**

4) **Current transfer** refers to the transfer made out of current income of payer and is added to current income of payee.

5) **Capital transfer** refers to transfer made out of the wealth of the payer and added to wealth of the **receiver**. (not in our syllabus).

**Flow concept vs stock concept**

**Flow concept:** - National income is a flow concept because it is measured over a period of time.

**USEFULNESS OF NATIONAL INCOME ESTIMATES**

➤ **It is helpful in many ways such as**

- a) **Helps business Businesses to forecast the future demand** for their products.
- b) shows the **composition and structure** of different sectors and the broad **sectoral shifts in an economy over time**.
- a) **Shows income distribution and the possible inequity in the distribution among different income categories** .
- b) **Helps government to make various sector-specific development policies, make macroeconomic modeling, comparisons of structural statistics and analysis to increase growth rates.**
- c) **Policy Formulation -Combined with financial and monetary data**, national income data provides a guide to make policies for growth and inflation.
- c) **International comparisons** in respect of incomes and living standards assist

**Limitation of National Income**

1. **Income Distribution is not clearly reflected: implies that the gap between rich and poor is widening**
2. If the increase in GDP is on account of **long working hours, Employment of child labour, and polluted working environment, exclusion of leisure** such increase in GDP is not the real sign of welfare.
3. **'How much is produced'** determines GDP. It does not reflect **'what is produced'**.
4. If more of capital goods are produced the GDP will rise but the welfare may not increase in same manner.
5. **Avoids importance of Non-Market Transaction-** Example, Such as providing music class to society children for fun and other similar activity.

**Explain the conceptual difficulties or challenges in measurement of national Income**

**The conceptual difficulties or challenges in measurement of national Income are:**

1. **Lack of an agreed definition of National Income.** (like GDP, GNP, NDP, NNP etc)
2. **Non-availability of accurate distinction between final and intermediate goods.**
3. **Issue of transfer payments.**
4. **Service of durable goods.**
5. **Valuation of New goods at constant price**
6. **Valuation of Government services -**
7. **Data available** are either **inadequacy** or **unreliable** for calculation of national Income
8. **Presence of non-monetize sector**
9. **Production for self-consumption**

**6: GDP AND WELFARE**

**Can the GDP of a country be taken as an index of the welfare of people in that country?**

**Answer:**



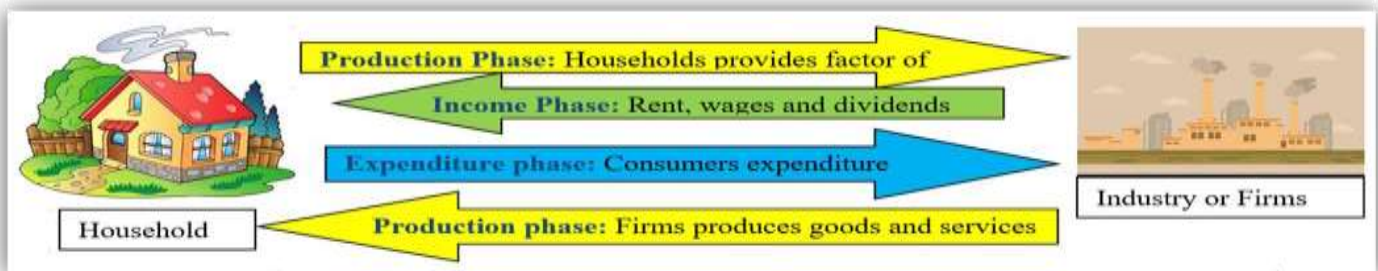
**GDP is the sign of welfare increase in GDP Increases welfare yet.**

- **Countries may have Same national income and per** capital income but their welfare may vary significantly .
- **Welfare may increase many times but not GDP.**
- **GDP may increase many times but not Welfare -**

## THE SYSTEM OF REGIONAL ACCOUNTS IN INDIA

1. All the **states and union territories** of India compute **state income estimates and district level estimates**.
2. Regional accounts **provide an integrated database** on the many transactions taking place at state level.
3. State Income or **Net State Domestic Product (NSDP)**- volume of all goods and services produced in the state.
4. The state level estimates are prepared by respective **State Directorates of Economics and Statistics (DEs)** with assistance of **The Central Statistical Organization assists the States**.
5. **Per Capita State Income** = NSDP (State Income) / midyear projected population of the state
6. Certain activities such as are **railways, communications, banking and insurance and central government administration**, gives services to many states and their economic contribution cannot be assigned to any one state directly are known as the '**Supra-regional sectors**' of the economy. The estimated value in these cases calculated and distributed to the states on the basis of relevant indicators

## CIRCULAR FLOW OF INCOME



- ▲ Circular flow of income refers to the **continuous circulation of production, income generation and expenditure** involving different sectors of the economy.
  - ▲ There are three different interlinked phases in a circular flow of income, namely: production, distribution and disposition.
1. **In Production phase-** firms produce goods and services with the help of factor services.
  2. **In Income or distribution phase,** the flow of factor incomes in the form of rent, wages, interest and profits from firms to the households occurs
  3. **In Expenditure or disposition phase,** the income received by different factors of production is spent on consumption of goods and services and investment goods. This expenditure leads to further production of goods and services and sustains the circular flow.

**Circular flow of income can be viewed from two different angles-**

- 1. What is Real Flow?** Real flow consists of flow of factor service and flow of goods and services among different sector of economy- **Yellow Arrows**
- 2. What is Money flow?** Money flow consists of flow of money for factor services in form of wages, rent, dividend (Green arrow) and money expenditure incurred on purchase of goods and services (Blue arrow/green).

**ECONOMIC SECTORS OF AN ECONOMY**

- 1. Household Sector:**
- 2. Business Sectors/ Firm/ Producer:**
- 3. Government Sector:**
- 4. Foreign Sector/ Rest of the World**

**Models of circular flow of Economy**

<b>2 Sector</b>	<b>3 Sector</b>	<b>4 Sector</b>
Household Sector Firm Sector	Household Sector Firm Sector Government	Household Sector Firm Sector Government Rest of the world
	Closed Economy	Open economy

**Two Sector Model without savings- Refer Diagram below****Assumptions:**

- There are **only two sectors** in an economy. **Households and the firms.**
- No savings** is made by either by Household or by Firm.
- Households **spend entire income** on goods and services and **firm distributes entire proceeds** in the form of factor payments.

In this two-sector model without investment it is assumed that all the income earned by the **Household** is spent on buying **Consumer Goods** from the firm, while all the proceed are distributed as factor payments to households. Thus, the equilibrium will be achieved.

In other words, there is **no leakage in income** and the below mentioned equations hold good-

- Total production of Goods and services by firm = Total consumption of goods and services by households.
- Factor Income of household = Total factor payments.
- Income of the firm = Expenditure of the households.
- Real flow = Money flow

**Two Sector Model with Savings and Investment****Assumptions**

- We have assumed that savings is done only by Households and not firms.**
- All the savings made by the households are invested in capital Market.**

**Savings, Leakage, reduction in flow of income and investment  $S=I$** 

Savings made by the households and the investments may not be equal in all the time. There are three

possible situations mentioned below-

- i. If Savings = Investment, equilibrium is achieved
- ii. If Savings > Investment, the flow of income declines
- iii. If Savings < Investment, the flow of income rises

### Three Sector Model of circular flow of income

The three-sector model consists of Households, Firms and Government.

1. The equilibrium condition of circular flow of income in 3 sector economy model is:  $S+T = I+G$ .
2. If  $(S+T) > (I+G)$ - Decline in flow of income
3. If  $(S+T) < (I+G)$ - Increase in flow of income

### Four Sector Model of circular flow of income

It is also called as open economy model as it is engaged in international operations too.

**Explanation:**

- \* Export is denoted by **X** while Import is denoted by **M**.

Thus, it can be said that **X** constitutes injection while **M** creates leakage into circular flow of income.

1. At equilibrium =  $S+T+M = I+G+X$
2. If  $S+T+M > I+G+X$ , there is decline in flow of income.
3. If  $S+T+M < I+G+X$ , there is increase in flow of income

### Distinction between three and four sector Economy model:

### Importance of Circular Flow of Income

1. **Easy to view** the entire system as circular flow of income.
2. Circular flow of income pinpoints the condition of **macroeconomics equilibrium**.
3. It gives an idea as to **how different sectors of economy interact**
4. It shows how different sectors of economy (Household sector, Business sector, Government and Rest of the world) are **interdependent and are interrelated**.
5. It helps in determining **size of income**. We can estimate national income with the help of output, income and expenditure phases of circular flow of income

Thus,

National Income refers to -

1. Money Value of all the **final goods and services produced** by a country during a year. (Production Phase)
2. **Total Flow of Earnings** of the Factor Owners, in the form of Wages, Salaries, Rent, Interest and Profits, which they receive through the production of goods and services. (Income Generation Phase)



## Unit 2- National Income Aggregates

### Domestic Product and National Product (Domestic income and National Income)

Particulars	Domestic Products	National Products
<b>Meaning</b>	Money value of Final Goods and service produced by <b>both, nationals of the country as well as foreign national</b> located <b>within domestic territory</b> of a country during a year	Money value of Final Goods and service produced by <b>Normal Resident of a country</b> whether operating within <b>domestic territory of a country or outside.</b>
<b>Basis of differentiation</b>	<ul style="list-style-type: none"> <li>▲ Addressed with the question of <b>where</b> the income is generated.</li> <li>▲ It is geography or territory oriented</li> </ul>	<ul style="list-style-type: none"> <li>▲ It can be addressed with the question of <b>who</b> generates the income.</li> <li>▲ It is Nationality Oriented.</li> <li>▲ It excludes foreign national</li> </ul>

### Net factor Income Earned from Abroad

Net factor Income Earned from Abroad or **NFIA** is the difference between the factor income received and the factor income accruing to rest of the world

### National Product at Market Price and National Product at Factor Cost

- 1) Factor cost refers to **factor payment made by the business to the owners of factor of production in the form of rent, wages, interest and profit**
- 2) **National product at Market price = National Product at factor cost + Indirect tax\* - Subsidies, or**
- 3) **National product at Market price = National Product at factor cost + Net Indirect tax\*\***

### Factor Cost vs Basic Price vs Market Price

- 1) **Factor cost = Sum total of factor income in form of rent, wages, interest and profit**
- 2) **Base Price: = Factor cost + Production tax (License, Stamp duty, municipal tax, property tax) - Production subsidies**
- 3) **Market price = base price + Product tax (Indirect tax/ GST) - product subsidy**
- 4) **Market Price: Basic Price + Product tax - Product Subsidy = Market Price.**
- 5) **MP = FC + Net Indirect tax (when production tax and production subsidies are not given)**

### Gross Vs Net

**Net domestic Product = Gross domestic Product - Depreciation**

**Net national Product = Gross national Product - Depreciation**

**1- Gross Domestic Product at Market Price - GDP<sup>MP</sup>**

**2- Gross National Product at Market Price - GNPMP**

**3- Net Domestic Product at Market Price - NDPMP**

4- Net National Product at Market Price - NNPMP

5- Gross Domestic product at Factor cost - GDPFC

6- Gross National product at Factor cost - GNPFC

7- Net Domestic product at Factor cost - NDPFC

8- Net National product at Factor cost - NNPFC

**Why NNP at factor cost is better measure of National Income than NNP at Market Price?**

**Answer:** NNP at Market price is affected by factor called as Net indirect tax. If there is change in tax rate and subsidy then NNP at market price figure will change accordingly **without** actual increase in Factor cost. Also, different countries have different tax rate and thus for **international comparison** of relative income level.

#### Types of Income:

Disposable income	Income available for disposable and it <b>includes transfer payments</b> . <i>Example, Income may be 10,000 but one may also receive transfer payment which will increase the money received by him to the extent of transfer payment say 2000. Therefore, Income is 10000 while Disposable income is 12000</i> <i>Thus,</i> <b>Disposable income = Income + Net Transfer payment**</b> Disposable income may be more or less depending upon whether Net transfer payment is positive or negative		
National Disposable Income	National Disposable income is the sum total of National Income at Market price and net of Current transfer received from rest of the world <b>GNDI = <math>GNP_{MP}</math> + Net transfer Payments received from rest of the world</b> <b>NNDI = <math>NNP_{MP}</math> + Net transfer Payments received from rest of the world</b> <b>NNDI = <math>GNP_{MP}</math> + Net transfer Payments received from rest of the world - depreciation</b>		
Disposable income of Private sectors	There are three disposable income aggregates, namely- 1. Private Income 2. Personal Income 3. Personal Disposable income		
	Less	Miscellaneous receipts of Govt. department. Fines, fees etc.	30
	Less	Personal taxation	60
		Personal Income	640
Per Capital Income	a) It serves as an indicator of the standard of living of a country. b) Per capita income = $\frac{NNP_{FC}}{\text{Population}}$		

### Summary

**GNDI** =  $GDP_{MP} + \text{Net transfer payment received from rest of the world}$

**NNDI** =  $NDP_{MP} + \text{Net transfer payment received from rest of the world}$

**Private Income** =  $NNP_{FC} - \text{Income from property and entrepreneurship accruing to govt. commercial enterprises and admin department} - \text{Savings of non- Departmental enterprises of government} + \text{Interest on national debt} + \text{Net Current Transfer payment received from Govt. dept} + \text{Net transfer payment received from rest of the world}$

**Personal Income** =  $\text{Private Income} - \text{Undistributed profits} - \text{Corporate taxes}$

**Personal disposable income** =  $\text{Personal income} - \text{Personal taxes} - \text{Miscellaneous receipts of Govt. department.}$

**\*Interest that Govt. pays on National debt:** Sometimes govt. borrows fund from private institution and pays the interest on the same. The interest shall be included in factor payment by it is argued that the monies are utilized for welfare purpose and thus shall be treated as Transfer payment.

**\*\***The private sector receives transfer payment both from Govt. and rest of the world. Reverse is also true in many cases.

	Nominal GDP	Real GDP
Also known as	GDP at Current price	GDP at Constant price
Meaning	GDP at Current price is the value of all final goods and services produced within the domestic territory of a country by normal residents, whether nationals or non- nationals, inclusive of depreciation during a year at <b>market price prevailing in that year</b>	GDP at Constant price is the value of all final goods and services produced within the domestic territory of a country by normal residents, whether nationals or non- nationals, inclusive of depreciation during a year at <b>market price prevailing in base year</b>
		$\text{GDP at constant price} = \frac{\text{GDP at Current price}}{\text{Price index of current year}} \times 100$

**GDP Deflator:** It is the ratio of Nominal GDP (at Current Prices) to Real GDP (at Constant price)

**GDP Deflator:** 
$$\frac{\text{Nominal GDP}}{\text{Real GDP}}$$

- GDP Deflator takes out the Inflation out of Nominal GDP. It deflates the GDP.
- It converts Nominal GDP to Real GDP

**Inflation:**

- Using the GDP deflator, the inflation rate between two consecutive years can be compute using the following procedure:
- Inflation rate in year 2 = 
$$\frac{\text{GDP deflator in year 2} - \text{GDP deflator in year 1}}{\text{GDP deflator in year 1}} \times 100$$



**Methods of Measuring National Income**

There are three ways to measure National Income

1. **Product method or Value-added method**- Flow of Goods and services
2. **Income Method**- Flow of income generated
3. **Expenditure Method**- Flow of Expenditure on Goods and services

**Net product or Value-Added Method**

<b>Meaning</b>	National income by value added method is the sum total of net value added at factor cost across all producing units of the economy less intermediate purchases from all other industries.
<b>Steps 1</b>	Identifying the producing enterprises and classifying them into different sectors according to the nature of their activities <ol style="list-style-type: none"> <li>(i) <b>Primary sector</b>- production units which produces goods and commodities by <b>exploiting natural resources</b>. Examples- farming, Mining, Fishing, etc.</li> <li>(ii) <b>Secondary sector</b>- This sector transforms one form of commodity into other forms such as <b>manufacturing</b></li> <li>(iii) <b>Tertiary sector or service sector</b>- Provides services which are <b>intangible in nature</b>.</li> </ol>
<b>Step 2</b>	Estimating the gross value added (GVA MP) by each producing enterprise. Gross value added (GVA MP) = Gross Value of production - value of Purchase = Value of output - Intermediate consumption = (Sales + change in stock) - Intermediate consumption. This will Give us GDPMP
<b>Step 3</b>	<b>Conversion:</b> <ul style="list-style-type: none"> <li>• <math>GDP_{MP} - \text{depreciation} = NDP_{MP}</math></li> <li>• <math>NDP_{MP} - \text{Net indirect tax} = NDP_{FC}</math></li> <li>• <math>NDP_{FC} + NFIA = NNP_{FC}</math></li> </ul>
<b>Inclusion and exclusions</b>	<b>Precaution in Estimation of National Income by Value-added Method-</b> <ol style="list-style-type: none"> <li>1. <b>Production for self- consumption</b></li> <li>2. <b>Own account production of fixed assets.</b></li> <li>3. <b>Imputed rent of owner-occupied houses.</b></li> <li>4. <b>Service of House wives shall.</b></li> <li>5. <b>Sale and purchase of existing commodities or second-hand goods shall not be included. However.</b></li> <li>6. <b>Sale and purchase of Share and Bonds</b></li> </ol>

**Income Method/ Factor Payment Method/ Distributed Share Method**

<b>Meaning</b>	National income is calculated by summation of factor incomes paid out by all production units within the domestic territory of a country as wages and salaries, rent, interest, and profit.
<b>Steps 1</b>	Classify the income into appropriate income categories namely, <ol style="list-style-type: none"> <li>1. Labour Income or Compensation to employees</li> <li>2. Capital or Property income or Operating surplus</li> </ol>

3. Mixed Income of self employed This will give  $NDP^{FC}$

**Step 3**

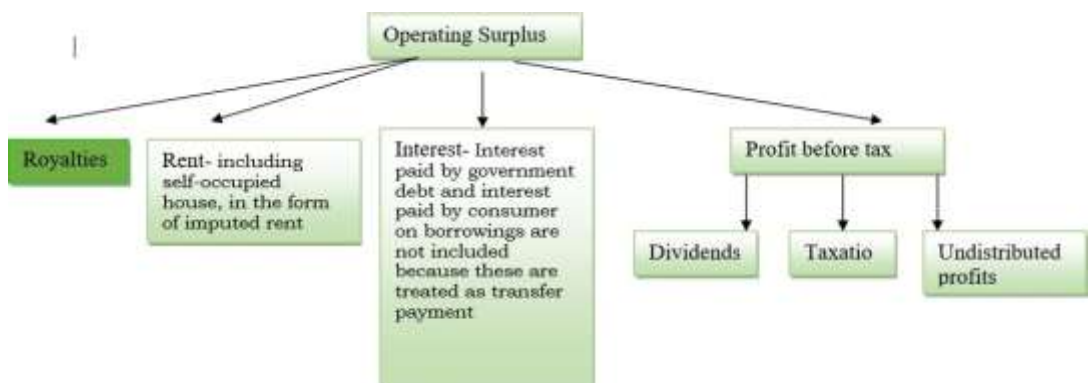
The above exercise will give  $NDP_{FC}$ . The adjustment of NFIA will give National Income

**Labour Income**

- This is the **compensation paid to the labour/ employee** for the services rendered by them.
- It is the payment made by the producer to employees or labour, for the services rendered by them, in cash, kind and social security benefits.

Included	Excluded
Salaries and wages in cash including Bonus, DA, HRA	Old age pension shall not be considered while calculating Labour income as it is a transfer payment
Current year pension provision shall be considered.	TA shall be excluded if it is for business work or on reimbursement basis.
Travelling allowance shall be included if it is for travel from office to home and home to work	Contribution of employee to social security fund shall not be added as it is already part of salary.
Contribution of employer to social security fund shall be added. E.g. Provident fund	Interest free loan given to employee
Commission paid to sales staff	Old age pension
Payment in kind- Rent free accommodation, Free Meal coupon	Income tax of employee
LIC premium paid by employer	Old age pension shall not be considered while calculating Labour income as it is a transfer payment

**Operating Surplus**



It is the income earned from **ownership and control of Capital**. Therefore, it is also known as income from **property** and **entrepreneurship**.

	<p>It includes</p> <ul style="list-style-type: none"> <li>▪ Rent- including self-occupied house, in the form of imputed rent</li> <li>▪ Interest</li> <li>▪ Royalties for</li> <li>▪ Profit before tax</li> </ul> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>✓ If the question mentions about Profit before tax than Undistributed profit, dividend and corporate taxes shall be ignore.</li> <li>✓ If the question does not mention about the profit before tax- add all three</li> <li>✓ If nothing is prefixed to profit, assume it to be PBT</li> <li>✓ Interest paid by government debt and interest paid by consumer on borrowings are not included because these are treated as transfer payment</li> </ul>															
<p><b>Mixed Income</b></p>	<ul style="list-style-type: none"> <li>➤ Mixed income is the income generated by <b>own account workers</b> and income of <b>unincorporated enterprises</b>.</li> <li>➤ Example of such mixed income are legal service, agriculture, trading, proprietorship, Plumber, carpenter etc.</li> <li>➤ Mixed income contains both components of income namely <b>capital income and labour income</b> of those who provides capital and labour service in production process.</li> <li>➤ It is the <b>composite of both labor income and capital income</b> and arises in case where it is difficult to differentiate between labour element and capital element I factor of production.</li> </ul> <p>Example of such incomes are own account workers like CA, Lawyer, Shopkeeper etc.</p>															
<p><b>Inclusion and exclusion</b></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: center; background-color: #d9e1f2;">Include</th> <th style="width: 50%; text-align: center; background-color: #d9e1f2;">Exclude</th> </tr> </thead> <tbody> <tr> <td style="background-color: #d9ead3;">Imputed rent of self-occupied house by owner of this house</td> <td style="background-color: #f2dede;">Transfer payment- Refer earlier part of the chapter</td> </tr> <tr> <td style="background-color: #d9ead3;">Value of production for self-consumption</td> <td style="background-color: #f2dede;">Illegal Income like, smuggling, drug dealing etc.</td> </tr> <tr> <td style="background-color: #d9ead3;">Imputed value of service provided by owner of production unit</td> <td style="background-color: #f2dede;">Interest on loan taken for meeting consumption expenditure- eg. Loan to buy house, loan to buy car, etc.</td> </tr> <tr> <td style="background-color: #d9ead3;">Interest on loan taken for meeting business needs</td> <td style="background-color: #f2dede;">Interest on national debt- refer earlier discussion</td> </tr> <tr> <td style="background-color: #d9ead3;">Brokerage service in facilitating the transaction of second-hand goods</td> <td style="background-color: #f2dede;">Income in respect of second-hand commodities</td> </tr> <tr> <td style="background-color: #d9ead3;">Income tax and TDS to show gross income</td> <td style="background-color: #f2dede;">Income arising from transfer of shares and other securities.</td> </tr> </tbody> </table>		Include	Exclude	Imputed rent of self-occupied house by owner of this house	Transfer payment- Refer earlier part of the chapter	Value of production for self-consumption	Illegal Income like, smuggling, drug dealing etc.	Imputed value of service provided by owner of production unit	Interest on loan taken for meeting consumption expenditure- eg. Loan to buy house, loan to buy car, etc.	Interest on loan taken for meeting business needs	Interest on national debt- refer earlier discussion	Brokerage service in facilitating the transaction of second-hand goods	Income in respect of second-hand commodities	Income tax and TDS to show gross income	Income arising from transfer of shares and other securities.
Include	Exclude															
Imputed rent of self-occupied house by owner of this house	Transfer payment- Refer earlier part of the chapter															
Value of production for self-consumption	Illegal Income like, smuggling, drug dealing etc.															
Imputed value of service provided by owner of production unit	Interest on loan taken for meeting consumption expenditure- eg. Loan to buy house, loan to buy car, etc.															
Interest on loan taken for meeting business needs	Interest on national debt- refer earlier discussion															
Brokerage service in facilitating the transaction of second-hand goods	Income in respect of second-hand commodities															
Income tax and TDS to show gross income	Income arising from transfer of shares and other securities.															
<p><b>Difficulties</b></p>	<ol style="list-style-type: none"> <li>1. It is very difficult to estimate Mixed income in vast country with unincorporated sectors and un-organized sector.</li> <li>2. Many economists criticize the non-inclusion of interest on national debt in calculation of national Income.</li> <li>3. The data collected for calculation of NI is highly unreliable and</li> </ol>															



understated.

**Expenditure Method/ Income disposal Method**

<b>Meaning</b>	In the expenditure approach, national income is the aggregate final expenditure in an economy during an accounting year. This approach gives GDP at market price.
<b>Explanation:</b>	Expenditure on final goods and services in the economy is divided into four broad categories, namely <ol style="list-style-type: none"> <li><b>Private final consumption expenditure-</b> Consumption expenditure done by households.</li> <li><b>Investment Expenditure-</b> Investment expenditure done by producers and Government in an economy.</li> <li><b>Government final consumption expenditure-</b> Consumption expenditure done by government.</li> <li><b>Net exports-</b> foreign component of expenditure in the form of net exports.</li> </ol>
<b>Private Final consumption expenditure</b>  <b>Denoted By C</b>	<b>The volume of final sales of goods and services to consumer households and nonprofit institutions serving households acquired for consumption (not for use in production) are multiplied by market prices and then summation is done.</b>  It also includes the value of primary products which are produced for own consumption by the households, payments for domestic services which one household renders to another.
<b>Government final consumption expenditure</b>  <b>Denoted By G</b>	<b>Government means general government and not the government enterprises</b> Since the collective services provided by the governments such as defense, education, healthcare etc. are not sold in the market, the only way they can be valued in money terms is by adding up the money spent by the government in the production of these services. This total expenditure is treated as consumption expenditure of the government.  Government expenditure on pensions, scholarships, unemployment allowance etc. should be excluded because these are transfer payments.
<b>Investment Expenditure</b>  <b>Denoted By I</b>	Gross domestic fixed capital formation includes final expenditure on machinery and equipment and own account production of machinery and equipment, expenditure on construction, expenditure on changes in inventories, and expenditure on the acquisition of valuables such as, jewelry and works of art.  It comprises of- <ol style="list-style-type: none"> <li><b>Gross fixed investment-</b> Expenditure on machinery and equipment, expenditure on construction, and expenditure on the acquisition of valuables such as, jewelry and works of art.</li> <li><b>Inventory Investment-</b> This means change in inventory.</li> <li><b>Expenditure on residential investment-</b> Expenditure on purchase or construction of new houses. Own account production of houses, expenditure on major repairs and renovation are to be included in</li> </ol>

	expenditure on residential houses
<b>Net Export</b> Denoted by $X-M$	Net exports are the difference between exports and imports of a country during the accounting year. It can be positive or negative.
<b>Formula</b>	$GDP_{MP} = C+I+G+(X-M)$ Therefore National Income $Y = C + I + G + (X-M) + NFIA - \text{Depreciation} - NIT$
<b>Precautions</b>	<ol style="list-style-type: none"> <li>1. Goods meant for self-consumption shall be added and proper value shall be assigned in that case.</li> <li>2. Own account production of machinery and equipment shall be added to calculate final expenditure on machinery and equipment.</li> <li>3. Transfer payments shall be excluded.</li> <li>4. Expenditure on second-hand goods should be excluded.</li> <li>5. Expenditure on intermediate products should be excluded.</li> </ol>

**Question: Why are net exports added when computing national income by expenditure Method?**

### Choice of Different method

In many economies, it **may not be possible** to estimate National Income using any **one method exclusively**.

- a) **Income Method** is more suitable in **Developed Economies**.
- b) **If Commodity Flow and Expenditure** then Expenditure Method can be used.
- c) An effective procedure is to arrive at National Income using all these three approaches / methods, which serves the following purposes -
  - i. to permit cross-checking of different methods, ensuring greater accuracy of data,.
  - ii. to provide more details and insights - e.g. Sectoral Contribution to Production, Income Group Distribution, Consumption and Investment Patterns, etc .

In India, a **combination of the three methods** is used, e.g. *Production Method is used for Agricultural Sector, Income Method is used for Small Scale Sector and Expenditure Method is used for Construction Sector*, to determine Net Value Added in that Sector.

### Keynesian Theory of Income determination

#### Background:

- ✚ The Great Depression of the 1930's, was the greatest economic crisis the western world had experienced.
- ✚ Many economists then recommended **government spending** as a way of reducing unemployment, but they had no macroeconomic theory by which to justify their recommendations.
- ✚ A comprehensive theory to explain Income determination was first put forward by the British economist John **Maynard Keynes** in his masterpiece '**The General Theory of Employment Interest and Money**' published in 1936.

- ✚ The Keynesian theory of income determination is presented in two sector model, three sector model and four sector mode.
- ✚ *Equilibrium output occur when the desired amount of output demanded by all the agents in the economy exactly equals the amount produced in a given time period. In other words, an economy is said to be in equilibrium when the production plans of the firms and the expenditure plans of the households match.*

**Key Words:**

<b>Consumption Function</b>	<p>1. Functional relationship between aggregate consumption expenditure and aggregate disposable income, expressed as <math>C = f(Y)</math>. shows the level of consumption (C) corresponding to each level of disposable income (Y).</p> <p>2. The consumption function describes the functional relationship between <b>consumption spending and disposable income.</b></p>				
<b>Saving Function</b>	Income not spent on consumption is saved. Thus, saving function denotes the balance after impact of consumption				
<b>Marginal Propensity to consume</b>	<p>The concept of MPC describes the relationship between change in consumption (<math>\Delta C</math>) and the change in income (<math>\Delta Y</math>). The value of the increment to consumer expenditure per unit of increment to income is termed the Marginal Propensity to Consume (MPC).</p> <p><math>MPC = \text{Consumption} / \text{Income}</math></p>				
<b>Marginal propensity to Save (MPS)</b>	<p>(1 - b) is called (Marginal Propensity to Save) MPS.</p> <p><math>MPS = S / Y</math></p>				
<b>Average propensity to consume</b>	<p>The average propensity to consume is a ratio of consumption defining income consumption relationship. The ratio of total consumption to total income is known as the average propensity to consume (APC)</p> <p><b><math>APC = \text{Total consumption} / \text{Total income}</math></b></p>				
	<b>Income (Y)</b>	<b>Consumption (C)</b>	<b>APC (C/Y)</b>	<b>MPC (<math>\Delta C / \Delta Y</math>)</b>	<b>MPS (<math>\Delta S / \Delta Y</math>)</b> <b><math>= (1 - MPC)</math></b>
	0	500	$500/0 = \infty$	-	-
	1000	1250	$1250/1000 = 1.25$	$750/1000 = 0.75$	0.25
	2000	2000	$2000/2000 = 1.00$	$750/1000 = 0.75$	0.25
	3000	2750	$2750/3000 = 0.92$	$750/1000 = 0.75$	0.25
	6000	5000	$5000/6000 = 0.83$	$1500/2000 = 0.75$	0.25
	10,000	8000	$8000/10,000 = 0.80$	$3000/4000 = 0.75$	0.25
<b>Autonomous Expenditure</b>	<p>Autonomous consumption expenditure is the minimum expenditure to sustain life irrespective of size of income, thus it is income inelastic. The expenditure which do not vary with the level of income. They are determined by factors other than income such as business expectations and economic policy. They are generally made by ----- in the public sector with a view to provide public utilities &amp; to make maximum social benefit.</p>				



**Keynesian theory of determination of National Income in two Sector Model.**

- i. According to Keynes  $AD=AS$  \_\_\_\_\_ (1)
- ii.  $AD = C+ I$  \_\_\_\_\_ (2)
- iii. Aggregate Supply in terms of Money = Quantity Produced x Price.
- iv. Value of Aggregate Supply = National Income. \_\_\_\_\_ (3)
- v. Income (Y) = C+ S \_\_\_\_\_ (4)
- vi. Therefore from (1), (2), (3) & (4)
- vii.  $C+S = C+I$
- viii.  $S=I$
- ix.  $C = a + by$

❖ Why any other point cannot be Equilibrium NI?

❖ **Case 1:**  $AS > AD$  i.e  $C+S > C+I$

Ans: The firm will not be able to sell its stock & firm will reduce the production and cut down on expenditure, as a result demand for factor of production will decrease, in case of Factor will

✚ reduce and thus spending will fall. This process will continue till equilibrium is reached.

❖ **Case 2:**  $AS < AD$  i.e  $C+S < C+I$

Ans: Here Demand is greater than supply and hence producer will increase the production leading to higher National income. This will cause upward moment along the line to achieve the equilibrium

**Keynesian theory of determination of National Income in three Sector Model.**

$$Y = AS = C + S + T \text{ _____ (2)}$$

$$Ad = C + I + G \text{ _____ (3)}$$

∴ Consumption will be-  $C = a + b (Y_d)$

**Keynesian theory of determination of NI in Four Sector Model.****In 4 Sector Economy**

$$AS = AD$$

$$C + S + T = C + I + G + (x - m)$$

$$S + T = I + G + (x - m)$$

$$\text{OR } S + I + m = I + G + x$$

**Investment Multiplier:**

1. The multiplier refers to the **phenomenon whereby a change in an injection of expenditure will lead to a proportionately larger change** (or multiple change) in the level of national income.
2. Multiplier explains how many times the aggregate income increases as a result of an increase in investment.
3. The ratio of  $\Delta Y$  to  $\Delta I$  is called the investment multiplier, k.
4.  $\Delta Y = k \Delta I$ .

5. The value of the multiplier is found from the equation  $k = 1 / (1 - MPC)$ . Or  $K = 1 / MPS$
6. The multiplier shows how shocks to one sector are transmitted throughout the economy.

#### Effect of Changes in Autonomous Investment

1. an increase in autonomous investment by  $\Delta I$  shifts the aggregate demand schedule from  $C+I$  to  $C+I+\Delta I$ .
2. Correspondingly, the equilibrium shifts from  $E$  to  $E^1$  and the equilibrium income increases more than proportionately from  $Y_0$  to  $Y_1$ .

Till how long these processes go?

1. The more powerful these leakages are, the smaller the value of the multiplier. The leakages are caused due to:
  - a) Progressive rates of taxation
  - b) High liquidity preference and idle saving or holding of cash balances
  - c) Demand met out of the existing stocks or through imports.
  - d) Additional income spent on purchasing existing wealth or purchase of government securities and shares from shareholders or bondholders, income used for payment of debts
  - e) case of full employment additional investment will only lead to inflation, and scarcity of goods and services despite having high MPC

In underdeveloped countries value of multiplier is low, due to structural inadequacies, increase in consumption expenditure is not generally accompanied by increase in production.

#### Relationship between Investment Multiplier and Marginal Propensity to consumer

Higher the MPC, Higher will be the Value of Multiplier, and Vice versa. Maximum Value of Multiple will be Infinite when MPC is 1. We conclude that value of Multiplier is reciprocal of MPS (1-MPC)

#### Deflationary Gap

1. If the aggregate demand is for an amount of output less than the full employment level of output, then we say there is deficient demand.
2. Deficient demand gives rise to a 'deflationary gap' or 'recessionary gap'.
3. Recessionary gap also known as 'contractionary gap' arises in the Keynesian model of the macro economy when the equilibrium level of aggregate production achieved in the short-run falls short of what could be produced at full employment.
4. Recessionary gap occurs when the economy is in a business-cycle contraction or recession.

# Public finance – Market Failure and Government Intervention

## 2.1.1 Market Failure

- Economists presume that people will make choices in their **own self-interest**, in their **greatest personal benefit** and **behave rationally**.
- **Prices provide the accurate signals** for right quantity and right price.
- The term "**market failure**" does not mean the market is not working at all, it only means that the market does not function in the way that it should.
- Market failure - **misallocation of society's scarce resources** - either **overproduction** or **underproduction**.
- There are two types of market failure namely;
  - 1) Complete market failure. This is a case of "missing markets" and occurs when the market does not supply products at all.
  - 2) Partial market failure occurs when the market does actually function, but it produces either the wrong quantity of a product or at the wrong price..

## 2.1.2 Four major reasons for Market Failure

Market power

Externalities

Public Goods

Incomplete Info

### Market Power

Point	Explanation
Meaning	<ol style="list-style-type: none"> <li>1) Market power or monopoly power is the <b>ability of a firm to profitably raise the market price</b> of a good or service over its marginal cost and can charge a price that gives them positive economic profits.</li> <li>2) These profits are not achieved due to operating efficiency, but due to market power and dominance.</li> <li>3) <i>For Buyers: Market Power is the ability of Buyers to influence the Seller into the production of certain goods and services, over and above optimum levels of consumption. (Generally, Market Power is viewed from the Sellers' Perspective)</i></li> </ol>
Techniques	<ol style="list-style-type: none"> <li>1. <b>Lower output: (artificial scarcity)</b></li> <li>2. <b>Higher Price:</b></li> <li>3. <b>Missing Markets:</b></li> </ol>

### Externalities | Spillover effects | Neighborhood effects | Third-party effects | side-effect

*(Kare koi aur bhare koi aur)*

Point	Explanation
Meaning and concept	<ol style="list-style-type: none"> <li>1. <b>When actions of either Consumers or Producers result in costs or Benefits that do not reflect as part of the Market Price, such costs or Benefits which are not recognized by, and accounted for, by the Market Price are called "Externalities"</b></li> </ol>



	<p>2. An Externality occurs, when a Consumption or Production Activity has an <u>indirect effect on other's consumption or Production activities</u> and such effect are not reflected directly in Market Prices.</p> <p>3. Externalities are costs (negative externalities) or benefits (positive externalities), which are not reflected in free market prices.</p>	
Consequences of Negative Externalities	<p>1) In Case of Negative Externalities- Marginal <b>Social Cost</b> &gt; Marginal Private Cost.</p> <p>2) In Case of positive Externalities- Marginal <b>Social Cost</b> &lt; Marginal Private Cost.</p>	
Unidirectional and reciprocal Externalities	<b>Unidirectional Externalities</b>	<b>Reciprocal Externalities</b>
	Occurs when Originator imposes costs or Benefits on another (Recipient) and there is no externality imposed by the Recipient back on the Originator.	It occurs when 2 persons impose there is costs or on one another.
Production Externalities & Consumption Externalities	<b>Production Externalities</b>	<b>Consumption Externalities</b>
	<b>Production externality</b> initiated in production which imposes an external cost/ benefit on others may be received by another in consumption or in production.	<b>Consumption externalities</b> initiated in consumption which produce external costs/ benefits on others may be received in consumption or in production.
Externalities can be positive or negative.	<b>Positive externalities</b>	<b>Negative externalities</b>
	occur when the action of one party <b>confers benefits</b> on another party	occur when the action of one party <b>imposes costs</b> on another party.
	It is socially desirable	It is socially undesirable

## 2. Goods

**Characteristics of Private goods:** Private goods refer to those goods that yield utility to people. Anyone who wants to consume them must purchase them.

A few examples are: food items, clothing, movie ticket, television, cars, houses etc.

Properties of Private goods:

1. **Property Right:**
2. **Rivalrous:**
3. **Excludable:**
4. **No Free riding problem:**
5. **Rejectable:**
6. **Additional resource costs**
7. **Efficient Allocation-**
8. **There is no Market Failure.**

**Public Goods** - Paul A. Samuelson who introduced the concept of 'collective consumption good' in his path-breaking 1954 paper 'The Pure Theory of Public Expenditure' is usually recognized as the first economist to develop the theory of public goods.

### a) Characteristics of Public Goods:

1. **Collective in nature:**

2. **No direct payment**
3. **Non-rival in consumption.**
4. **Public goods are non-excludable.**
5. **Public goods are characterized by indivisibility.**
6. **Free Riding Problem & Externalities:**
7. **Example:** Defence, Highways, Education, Scientific Research, Law Enforcement, Lighthouse, Fire Protection, Disease Prevention, Public Sanitation etc. **[Note:** Public Goods are divided into Public Consumption Goods and Public Factors of Production.]

### Pure and Impure Public Goods

sn	Pure Public Goods	Impure Public goods
1.	A pure public good is <b>non-rivalrous</b> and <b>non-excludable</b> .	There are many hybrid goods that possess <b>some features of both public and private goods</b> . Impure public goods are partially rivalrous or congestible.

### Free Riding

1. Free riding is '**benefiting from the actions of others without paying**'.
  2. Consumers can take advantage of public goods **without contributing sufficiently** to their production.
  3. The **absence of excludability** in the case of public goods and the **tendency of people to act in their own self-interest** will lead to the problem of free riding.
  4. If every individual plays the same strategy of free riding, the strategy will fail because nobody is willing to pay and therefore, nothing will be provided by the market. Then, a free ride for any one becomes impossible.
1. No public good will be provided in private markets
  2. Private markets will seriously under produce public goods even though these goods provide valuable service to the society.

### Information failure

- a) **Complex nature:**
- b) **Information not available quickly and cheaply:**
- c) **Ignorant Buyer/seller:**
- d) **Inaccuracy:**
- e) **Misunderstanding:**

### Asymmetric information

- a) Asymmetric information occurs when there is an **imbalance in information between buyer and seller** i.e. when the buyer knows more than the seller or the seller knows more than the buyer can distort choices.
- b) This lead to Problem of **Adverse Selection - wrong product selected**

### 'Lemons problem' developed by **George Akerlof** in relation to the used car market

- a) Second-hand cars may be good quality cars or poor quality cars defined as "**lemons**". The owner of a car knows much more about its quality than anyone else & he may not disclose all the mechanical defects of the vehicle.
- b) Based on the probability that the car on sale is a 'lemon', the buyers' willingness to pay for any particular car will be based on the '**average quality**' of used cars. Since there is quality uncertainty, to account for this risk, the price offered for any used car is likely to be less.



**Adverse Moral Hazard - seen in case of Insurance**

1. Moral Hazard is **opportunism** characterized by an informed person's taking **advantage of a less-informed person through an unobserved action**.
2. It arises from lack of information about someone's future behavior.
3. Moral hazard occurs when there is distortion of incentives to take care or to exert effort when **someone else bears the costs of the lack of care or effort**.

**Role of Government****Objectives of Government Interventions:**

1. To control potential rise in prices. (MRTP Act)
2. To bring in welfare to the under privileged sections of the Society by ensuring equity and fairness, (Subsidy)
3. To provide Incentives to promote production / use of Resources in a socially desirable direction etc. (Organic vegetable).
4. One of the most important activities of the government is to redistribute incomes so that there is equity and fairness in the society.

**Argument in favor of Government Interventions:**

1. The role of government **improves the wellbeing of individuals and households**.
2. **Under production** of certain goods & higher prices than would exist under conditions of competition( Generic Medicine)
3. **Non-production of public goods** (or collective goods) in sufficient quantities by the market. (Parks and Playground)
4. Production and Consumption of a Good or Service affects People and they cannot influence through Markets decision about how much of the Good or Service should be produced e.g. Pollution
5. Reduction or Distortion in choices available to consumers, and consequently lower welfare. (Only Private mode of Transport)
6. Equity and Fairness- to Curb Inequalities in the distribution of Income and Wealth.
7. Instabilities caused by Business cycles and fluctuations which lead to recession, inflation, etc. for prolonged periods, and cannot be corrected by Market system as such.
8. Market's inability to rectify "**Stagflation**" i.e. a State of affairs in which inflation and Unemployment co-exist,
9. Market's inability to rectify "**Contagious Effect**" i.e. forces of instability transmitted from one country to other countries, due to increased international interdependence

**Arguments against government interventions:**

- Government intervention does not imply that Markets are replaced by Government action. Government can act only as **complement rather than as a substitute** to the Market System in an economy,
- Governments may **not always** be **unbiased and benevolent**.
- Individuals may use Government as a Mechanism for maximizing their **self interest**
- In certain cases, the **cost** incurred by Government to deal with some Market failure could be greater than the cost of Market Failure itself.
- Government intervention may produce **fresh and more serious problems** that the ones sought to be rectified.
- Government intervention is ineffective if it causes **wastage of resources** expended for the intervention
- Governments are likely to commit **serious errors** in its attempt to correct Market failure.



### Types of Government interventions

Government interference can be-

- ∂ **Direct** as a buyer or supplier of public goods / information
- ∂ **Indirectly** in the form of **subsidies / taxes** and regulation / influence to correct distortion in the market which occurs when there are deviations from the ideal perfectly competitive state.

### Market Power- Government control

1. **Setting maximum prices** that firms can charge.
2. Price regulation is most often used for **natural monopolies**.
3. **Rate-of-return regulation**. Another approach to regulation is setting **price-caps**.
4. Market liberalization by introducing competition in previously monopolistic sectors such as energy, telecommunication etc.
5. Controls on mergers and acquisitions if there is possible market domination
6. Price capping and price regulation
7. Profit or rate of return regulation
8. Patronage to consumer associations
9. Tough investigations into cartelization and unfair practices such as collusion and predatory pricing
10. Restrictions on monopsony power of firms
11. Reduction in import controls and
12. Nationalization



### Government intervention to Correct Externalities

**A. Direct Control:** (also known as command solutions) - Direct controls **prohibit** specific activities that explicitly create negative externalities or require that the negative externality be limited to a certain level.

Examples Include:

- Smoking is completely banned in many public places.
- Stringent rules are in place in respect of tobacco advertising, packaging and labeling etc.
- fix emissions standard which is the legal limit on how much pollutant a firm can emit
- Licensing, production quotas and mandates regarding acceptable production processes are other examples of direct intervention by governments.

**B. Indirect/ market-based Control:**

- ✓ These provide economic incentives to Market Participants, to achieve the socially optimal solution.
- ✓ In other words, the government tries to alter the prices of goods through taxes and subsidies and thus change the behaviour of market participants.
  1. Setting the price directly through a pollution tax. These taxes are named Pigouvian taxes after A.C. Pigou.
  2. Setting the price indirectly through the establishment of the cap-and-trade system.

**a) The second approach to establishing prices indirectly is 'tradable emissions permits'.**

You might have heard of 'carbon credits'. The use of tradable permits to limit emissions is often called 'cap and trade'.

- a) Marketable Licenses (called permits) to emit limited quantities of pollutants can be bought at a specified price from the Regulatory Agency, by Polluters

- b) A high polluter has to either- i) pay monetary penalties, or ii) buy more permits both leading to increase in costs and decrease in profits.
- c) A low polluter can- i) avoid Monetary Penalties, and ii) sell permits and earn revenue, both making such firm profitable.

i. Problems in administering an efficient pollution tax.

- ∂ Difficult to Administer-
- ∂ Complex-
- ∂ No Genuine solution-
- ∂ Failure in case of inelastic demand-
- ∂ Adverse effect on employment-

### Government Intervention to correct externalities Positive externalities:

Though positive externality is associated with **external benefits**, we still call it a **market failure** because, left to market, there will be less than optimal output.

#### A. Direct Control:- Production & Supply

- a) Government enters the market directly as an Entrepreneur, to produce items whose externalities are vastly positive & pervasive.
- b) Examples: R&D, afforestation, Sewage Treatment, Cleaning up Rivers etc.

#### B. Indirect control:- Subsidies:

- a) Subsidies given by Government reduce the Production Costs of firms.
- b) This leads to higher output and supply.
- c) Thus, such goods will be produced in higher quantities i.e. socially optimum level of output

### Government intervention in case of Merit Goods

#### Meaning and Example

1. Merit Goods- a) are **socially desirable**, b) involve substantial **positive externalities** in their consumption.



#### Need for Intervention

1. **Lower Output:**
2. **Equity Fairness:**
3. **Uncertainty in consumption:**
4. **Imperfect information:**



#### Government can regulate the supply of merit goods in following manner

1. **Direct government provision:**
2. **Regulation:**
3. **Subsidies:**
4. Governments also engage in direct production of environmental quality.



### Government intervention in De-merit Goods

#### Meaning and Example

1. Demerit goods are goods which are believed to be **socially undesirable** and involve **high level of negative externalities**.
2. However, it should be kept in mind that all goods with negative externalities are not essentially demerit goods; e.g. Production of steel causes pollution, but



steel is not a socially undesirable good.

3. More than optimal production and consumption.
4. Misallocation of society's scarce resources.
5. Consumers overvalue demerit goods because of imperfect information.

#### ways for Intervention

1. Complete ban.
2. Persuasion.
3. Through legislations
4. Strict regulations \.
5. Regulatory controls.
6. Imposing unusually high taxes

#### Reason why Govt. fails to provide such measures -

1. Addiction level
2. Inelastic nature of demand.
3. Sellers can always shift the taxes to consumers without losing customers.
4. Banned goods are secretly driven underground and traded in a hidden market.

#### Government intervention in other areas **Goods**

#### Reason why certain goods are produced by government despite the fact that it can be produced by Private sector

1. Left to the markets and profit motives, these may prove dangerous to the society..
2. In the case of such pure public goods where entry fees cannot be charged, direct provision by governments through the use of general government tax revenues is the only option.



#### Price intervention: non-market pricing

1. Very often, there is strong political demand for governments to intervene in markets for various goods and services on grounds of fairness and equity.
2. Price floor (a minimum price buyer is required to pay). Price floor means the lowest price fixed by government for a product. The Government fixes floor price for farm products. This regulates income of the farmers.
3. Price ceiling (a maximum price seller is allowed to charge for a good or service). When prices of certain essential commodities rise extremely, government may resort to controls in the form of price ceilings for making a resource or commodity available to all at reasonable prices.
4. In the case of many crops the government has initiated the Minimum Support Price (MSP) programme as well as procurement by government agencies at the set support prices. The objective is to guarantee steady and assured incomes to farmers. In case the market price falls below the MSP, then the guaranteed MSP will prevail.

#### Government Intervention for Incomplete Information

For combating the problem of market failure due to information problems following interventions are resorted to:

- Government makes it mandatory to have accurate labeling and content disclosures.
- Mandatory disclosure of information,
- Regulation of advertising and setting of advertising standards to make advertising more responsible, informative and less persuasive.



# FISCAL FUNCTIONS: AN OVERVIEW CENTRE AND STATE FINANCE

1. The governments of all nations have important economic functions even where markets constitute the basic resource allocation mechanism.
2. There are three main macroeconomic goals for any nation.
  - a. The first is economic growth.
  - b. The second goal is high levels of employment
  - c. third macroeconomic goal is stable price levels.

## View of Economists

### Adam Smith

Adam Smith is often described as a bold Advocate of Free Markets and Minimal Governmental Activity except in areas of-

- National Defense, Establishment and Maintenance of Highly beneficial Public, Maintenance of Justice, Public Works

### Richard Musgrave

Richard Musgrave, in his classic treatise "**The Theory of Public Finance**" (1959) introduced the three-branch taxonomy of the role of Government functions in a Market Economy. -

1. **Allocation Function (Efficiency Focus)**- Aims to correct the sources of inefficiency in the Economic System
2. **Distribution Function (fairness focus)**- Ensures that the Distribution of Wealth and Income is fair and equitable.
3. **Stabilization Function (to ensure price stability)**- Covers Monetary and Fiscal Policy, ensuring Macro-economic stability, Maintenance of High Levels of Employment and Price Stability etc.

*The allocation and distribution functions are primarily microeconomic functions, while stabilization is a macroeconomic function.*

## Allocation Function

1. **Meaning: Optimal or efficient allocation of scarce resources** means that the available resources are put to their best use and no wastages are there.
2. The private sector resource allocation is characterized by market supply and demand and price mechanism as determined by consumer sovereignty and producer profit motives.
3. The state's allocation, on the other hand, is accomplished through the revenue and expenditure activities of governmental budgeting.
4. In its allocation role, the government acts as a complement rather than as a substitute to the market system in an economy.

### Reason for Government Intervention in allocation:

1. Public goods will not be produced in sufficient quantities by the market.
2. Nonexistence of markets in a variety of situations.
3. Government intervention will improve in social welfare.

### Market failures which hold back the efficient allocation of resources

1. **Imperfect competition and presence of monopoly power**
2. Incomplete markets
3. Externalities Factor
4. Imperfect information
5. Inequalities in the distribution of income and wealth

A variety of allocation instruments are available by which governments can influence resource allocation in the economy.

1. Government may **directly produce** the economic good
2. Government may **influence private allocation** through incentives and disincentives
3. Government may influence **allocation through its competition policies**,
4. Government **sets legal and administrative frameworks**, and

### Re-distribution Function

1. The distributive function of budget is related to the basic question of 'for whom' should an economy produce goods and services.
2. Governments can redistribute income and wealth either through the **expenditure side or through the revenue side of the budget**.
3. On the expenditure side, **governments may provide free or subsidised education, healthcare, housing, food and basic goods etc. to deserving people**.
4. On the revenue side, **redistribution is done through progressive taxation**.

The distribution function of the government aims at-

1. **Equitable Distribution** ensuring increased overall social welfare
2. **Well-being** of those members of the society who suffer from deprivations of different types
3. Providing **equality** in income, wealth and opportunities
4. Providing security for people who have **hardships**, and
5. Ensuring that everyone enjoys **a minimal standard of living**.

Redistribution function/ market intervention for socio- economic reasons performed by governments are:

1. **Progressive taxation** policies of the government
2. Proceeds from progressive taxes used for financing public services, especially those that benefit low-income households
3. **Employment reservations**
4. families below the poverty line are provided with monetary aid and aid in kind
5. **Special schemes for backward regions** and for the vulnerable sections of the population

However, Redistribution measures should be accomplished with minimal efficiency costs by carefully balancing **equity and efficiency** objectives-comment

### Stabilization Function

1. Macroeconomic stability is said to exist when:
  - a) an economy's output matches its production capacity,
  - b) the economy's total spending matches its total output
  - c) the economy's labour resources are fully employed, and
  - d) Inflation is low and stable.

2. Stabilization function of the government is derived from the Keynesian proposition that *a market economy does not automatically generate full employment and price stability and therefore the governments should pursue deliberate stabilization policies.*
3. Business cycles are *natural phenomena & market mechanism is limited in its capacity* to prevent it.
4. In the absence of appropriate corrective intervention it may be *prolonged for longer periods.*
5. The stabilization issue also becomes more complex as the increased international interdependence ("*Contagion effect*").
6. Thus, The stabilization function is one of the key functions of fiscal policy and *aims at eliminating macroeconomic fluctuations arising from suboptimal allocation.*
7. The stabilization function is concerned with the performance of the aggregate economy in terms of:
  - a) labour employment and capital utilization,
  - b) overall output and income,
  - c) general price levels,
  - d) balance of international payments, and
  - e) the rate of economic growth.
8. Monetary policy works through controlling the size of money supply and interest rate in the economy.
9. Fiscal policy by means of its expenditure and taxation decisions.

### Centre and State Finance

- 1) **Fiscal federalism**, a term introduced by Richard Musgrave, deals with the division of governmental functions and financial.
- 2) Musgrave argued that the **federal or central government should be responsible for economic stabilization and income redistribution**, and the **allocation of resources** should be the **responsibility of the state and local governments.**
- 3) India is a federation of 28 states and 8 union territories.
- 4) **The constitution of India** has provided for the division of powers between the central and the state governments.
- 5) **Article 246 of the Constitution demarcates the powers of the union and the state** by classifying their powers into three lists, *namely union list, state list and the concurrent list.*
  - i. **The union list** contains items on which the union parliament alone can legislate
  - ii. **The state list** has items on which the state legislative assemblies alone can legislate
  - iii. **The concurrent list**, on which both the parliament and the legislative assemblies can legislate. In the event of conflicting legislation in concurrent list, the law passed by the centre prevails.
- 6) The central government has greater revenue raising powers. The union government can levy taxes such as *tax on income, other than agricultural income, customs and export duties, excise duties on certain goods, corporation tax, tax on capital value of assets excluding agricultural land, terminal taxes, security transaction tax, central GST, union excise duty, taxes other than stamp duties etc.*
- 7) The state governments can levy taxes *on agricultural income, lands and buildings, mineral rights, electricity, vehicles, tolls, professions, collect land revenue and impose excise duties on certain items.*
- 8) The property of the union is exempt from state taxation. The property and income of the states are not liable to be taxed by the centre.
- 9) Articles 268 to 281 of the constitution contain specific provisions in respect of distribution of finances among states.



**Distribution of revenue between the union and states is based on the constitutional provisions as follows:**

- 1) The **Finance Commission** is a constitutionally mandated body that is at the centre of fiscal federalism.
- 2) The Finance Commission helps in maintaining fiscal federalism in India by performing following functions:
  - (a) The **distribution between the union and the states of the net proceeds of taxes.**
  - (b) **Determination of principles and quantum** of grants-in-aid to states which are in need of such assistance.
  - (c) To **make recommendations to the President** on measures needed to augment (increase) the consolidated fund of a state.
- ∅ *The Fifteenth Finance Commission was constituted on 27, November 2017 against the background of the abolition of Planning Commission and the introduction of the goods and services tax (GST). The commission recommended the share of states in the central taxes (vertical devolution) for the 2021-26 to be 41%, which is the same as that for 2020-21.*
- ∅ *The criteria for distribution of central taxes among states for 2021-26 period are same as that for 2020-21. They is **Income Distance i.e the distance of a state's income from the state with the highest income.***

**Area** , **Population** (2011), **Demographic** performance (to reward efforts made by states in controlling their population), **Forest and ecology**, **Tax and fiscal** efforts:

#### **GST: - Background and facts**

1. The introduction of GST, which was rolled out across the country on 1 July 2017.
2. The GST subsumes the majority of indirect taxes - excise, services tax, sales tax, octroi (entry tax). The GST has made India's indirect tax regime unitary in nature.
3. The states levy and collect state GST (SGST) and the union levies and collects the central GST (CGST).
4. For any particular good or service or a combination of the two, the SGST and CGST rates are equal. An integrated GST (IGST) is applied on inter-state movement of goods and services and on imports and exports..
5. During the five-year transition period, the top five GST compensation-receiving states were Maharashtra, Karnataka, Gujarat, Tamil Nadu, and Punjab.
6. As per the supreme court verdict in May 2022, the Union and state legislatures have "equal, simultaneous and unique powers "to make laws on Goods and Services Tax (GST) and the recommendations of the GST Council are not binding on them.

## **THE PROCESS OF BUDGET MAKING: SOURCES OF REVENUE, EXPENDITURE MANAGEMENT AND MANAGEMENT OF PUBLIC DEBT**

1. A Budget is a statement that presents the details of '**where the money comes from**' and '**where the money goes to**'.
2. The government budget is a document presented for approval and legislation by a government.
3. The budget also contains estimates of the government's accounts for the next fiscal year called **budgeted estimates**.
4. **Need for Government Budget:** Budget is required -
  - a) To efficiently allocate limited resources to ensure maximum social welfare.

- b) To reallocate resources in accordance with its declared priorities.
- c) To ensure redistribution of Income and Wealth.
- d) For Reduction/ elimination of economic fluctuations to bring in stability, sustainable increase in real GDP and reduction in regional Disparities.

### THE PROCESS OF BUDGET MAKING

1. The budget is prepared by the Ministry of Finance in consultation with NITI Aayog and other relevant ministries.
2. Despite the fact that the union budget is presented on 1st February, the process of budget preparation commences in August-September of the previous year.
3. **Annual Financial statement:**
4. The budgetary procedures are -
  - a. *Preparation of the budget*
  - b. *Presentation and enactment of the budget and*
  - c. *Execution of the budget*
5. The budget process mainly consists of two types of activities:
  - a. The administrative process,;
  - b. The legislative process.

### **The budget speech of the Finance Minister is usually in two parts.**

The finance minister makes a detailed budget speech at the time of presenting the budget before the Lok-Sabha.

- A. **Part A of the budget speech gives an outline of the prevailing macro economic situation of the country and the budget estimates for the next financial year**
- B. **Part B of the budget speech details the progress**
- C. **The Annual Financial Statement** shows the **receipts and expenditure** of government in three separate parts under which government accounts are maintained, namely:
  - a. Consolidated Fund of India
  - b. Contingency Fund of India, and the
  - c. Public Account.
- D. The expenditures of certain categories (e.g. the emoluments and allowances of the President of India and his/her office, and emoluments of Judges of supreme courts and high ranking personnel of constitutional bodies across India) are 'charged' on the Consolidated Fund of India and are not subject to the vote of parliament, are also indicated separately in the budget.
- E. *By convention in an election year, the budget may be presented twice. The first one is to first to secure a Vote on Account for a few months. This is followed by the Annual financial statement for that year or the full-fledged Budget.*
- F. The Parliament has to pass the Finance Bill within 75 days of its introduction.

### SOURCES OF REVENUE

The broad sources of revenue are:

1. The **Department of Revenue of the Ministry of Finance** exercises control in respect of the revenue matters relating to **direct and indirect union taxes**. The department is also administering goods and services tax (GST), central sales tax, stamp duties too.

2. The Department of Revenue exercises control in respect of matters relating to all the direct and indirect union taxes through two statutory boards, namely,
- the Central Board of Direct Taxes (CBDT) - Matters relating to the levy and collection of all direct taxes
  - the Central Board of Indirect Taxes and Customs (CBIC). - Matters relating to the levy and collection of all indirect taxes (GST, Customs and central excise duties, service tax)

3. Government receipts are classified under two categories:

a) Revenue receipts		b) Capital receipts	
Tax revenue	Non tax revenue.	debt capital receipts	non debt capital receipts
<ol style="list-style-type: none"> <li>Corporation tax</li> <li>Taxes on income</li> <li>Wealth tax</li> <li>Customs duties</li> <li>Union excise duties</li> <li>Goods and services tax including GST compensation cess</li> <li>Taxes on union territories</li> </ol>	<ol style="list-style-type: none"> <li>Interest receipts,</li> <li>Dividends and profits from public sector enterprises and surplus transfers from Reserve Bank of India</li> <li>Other Non-tax revenues and</li> <li>Receipts of union territories</li> </ol>	<ol style="list-style-type: none"> <li>Market loans for different purposes</li> <li>Short term /Treasury bill borrowings</li> <li>Securities issued against small savings,</li> <li>State provident fund (Net)</li> <li>Net external debts</li> <li>Other receipts (Net)</li> </ol>	<ol style="list-style-type: none"> <li>Recoveries of loans and advances</li> <li>Miscellaneous capital receipts (disinvestments and others)</li> </ol>

- ❖ **Debt capital receipts** Comprise of market loans and short term borrowings by the government, borrowing from the Reserve Bank of India and loans taken from foreign governments/institutions.
- ❖ **Non debt capital receipts** include recoveries of loans advanced by the government to PSEs, state governments, foreign governments and union territories and sale proceeds of government assets, including those realized from divestment of government equity in public sector undertakings (PSUs).

## PUBLIC EXPENDITURE MANAGEMENT

1. The **Department of Expenditure of the Ministry of Finance** is the nodal department for overseeing the public financial management system. It is responsible for
- the implementation of the recommendations of the Finance Commission,
  - monitoring of audit comments/observations, and preparation of central government accounts.
  - Additionally, it also assists central ministries/departments in
  - controlling the costs and prices of public services,
  - reviewing systems and procedures to optimize outputs and outcomes of public expenditure.

In Expenditure budget, the Central government expenditure is classified into six broad categories as below:

### A. Centre's Expenditure:

- Establishment Expenditure of the Centre- includes establishment-related expenditure of the ministries/departments, and attached and subordinates offices.
- Central sector schemes- include those schemes which are entirely funded and implemented



by the central agencies under union government ministries/departments.

- c) Other central expenditures including those on CPSEs and Autonomous Bodies

#### B. Centrally Sponsored Schemes and other Transfers: The transfers include

- a) Centrally sponsored schemes  
b) Finance Commission transfers and  
c) Other transfers to states

### PUBLIC DEBT MANAGEMENT

- In emerging market and developing economies, **the government is generally the largest borrower.**
- Government debt from internal and external sources contracted in the Consolidated Fund of India is defined as Public Debt.
- Public debt management refers to the task of determining and implementing the strategy, by the fiscal and monetary authorities, the size and composition of debt, the maturity pattern, interest rates, redemption of debt etc**
- Debt management strategy is based on three broad pillars namely, **low cost of borrowing, risk mitigation and market development.**
- The **institutions responsible for public debt management are:**
  - Internal Debt Management Department (IDMD) (28 states and 2 UT)** - Division of RBI
  - External Debt - Department of Economic Affairs in Ministry of Finance (MOF)**
  - Ministry of Finance; Budget** Division and Reserve Bank of India - Other liabilities such as small savings, deposits, reserve funds etc.
- The Fiscal Responsibility and Budget Management (FRBM) was passed in 2003** to provide a legislative framework for reduction of deficit and thereby debt of the central government. The objectives of the act are:
  - inter-generational equity in fiscal management,
  - long run macroeconomic stability,
  - better coordination between fiscal and monetary policy, and
  - Transparency in fiscal operation of the government.

#### Budget concepts (Type of budgets)

surplus budget	<ul style="list-style-type: none"> <li>When estimated government receipts are more than the estimated government expenditure it is termed as surplus budget.</li> </ul>
deficit budget	<ul style="list-style-type: none"> <li>When estimated government receipts are less than the government expenditure.</li> </ul>
Balanced budget	<ul style="list-style-type: none"> <li>A balanced budget is a budget in which revenues are equal to expenditures.</li> </ul>
Unbalanced budget	The budget may either be surplus or deficit.
Capital Receipts	<ul style="list-style-type: none"> <li>Capital receipts are those receipts that lead to a reduction in the assets or an increase in the liabilities of the government.</li> </ul>
Revenue Receipts	<ul style="list-style-type: none"> <li>Revenue receipts can be defined as those receipts which neither create any liability nor cause any reduction in the assets of the government.</li> <li>There are two sources of revenue receipts for the government – tax revenues and non-tax revenues.</li> </ul>
Capital	<ul style="list-style-type: none"> <li>There are expenditures of the government which <b>result in creation of physical</b></li> </ul>

<b>Expenditure</b>	<b>or financial assets or reduction in financial liabilities.</b>
<b>Revenue Expenditure</b>	<ul style="list-style-type: none"> <li>Revenue expenditure is expenditure incurred for purposes <b>other than creation of physical or financial assets</b> of the central government.</li> </ul>
<b>Revenue Deficit</b>	<ul style="list-style-type: none"> <li>The revenue deficit refers to the excess of government's revenue expenditure over revenue receipts.</li> <li>Revenue deficit = Revenue expenditure - Revenue receipts</li> </ul>
<b>Budgetary Deficit or Overall Deficit</b>	<ul style="list-style-type: none"> <li>Budgetary Deficit is defined as the excess of total estimated expenditure over total estimated revenue, both revenue and capital.</li> </ul>
<b>Fiscal Deficit</b>	<ul style="list-style-type: none"> <li>Fiscal deficit is the difference between the government's total expenditure and its total receipts <b>excluding borrowing</b> (non-borrowed receipts).</li> <li>Fiscal Deficit = Revenue Deficit + (Capital Expenditure - Capital Receipts excluding borrowing)</li> <li>The fiscal deficit will have to be financed by borrowing.</li> </ul>
<b>Primary Deficit</b>	<ul style="list-style-type: none"> <li>Primary deficit is <b>defined as fiscal deficit of current year minus interest payments on previous borrowings.</b></li> <li><b>Primary deficit = Fiscal deficit - Net Interest liabilities</b></li> </ul>
<b>Finance Bill</b>	The Bill produced immediately after the presentation of the union budget detailing the Imposition, abolition, alteration or regulation of taxes proposed in the budget.
<b>Outcome budget</b>	<ul style="list-style-type: none"> <li>The outcome budget measures <b>budgetary allocations of schemes and its annual performance targets measured through output and outcome indicators.</b></li> </ul>
<b>Guillotine</b>	<ul style="list-style-type: none"> <li>The parliament has very limited time for examining the expenditure demands of all the ministries.</li> <li>Once the prescribed period for the discussion on demands for grants is over, the speaker of Lok Sabha puts all the outstanding demands for grants, whether discussed or not, to the vote of the house. This process is popularly known as 'Guillotine'.</li> </ul>
<b>Cut Motions</b>	<ul style="list-style-type: none"> <li>Motions for reduction to various demands for grants are made in the form of cut motions seeking to reduce the sums sought by government on grounds of economy or difference of opinion on matters of policy or just in order to voice a grievance.</li> </ul>
<b>Consolidated Fund of India</b>	<ul style="list-style-type: none"> <li>All revenues received, loans raised and all moneys received by the government in repayment of loans are credited to the Consolidated Fund of India</li> <li>All expenditures of the government are incurred from this fund.</li> </ul>
<b>Contingency Fund of India</b>	<ul style="list-style-type: none"> <li>A fund placed at the <b>disposal of the President</b> to enable him/her to make advances to the executive/Government to meet urgent unforeseen expenditure.</li> <li>Contingency fund enables the government to meet unforeseen expenditure and does not require prior legislative approval.</li> </ul>
<b>Public Account</b>	<ul style="list-style-type: none"> <li>Under provisions of Article 266(1) of the Constitution of India, public account is used in relation to all the fund flows where government is acting as a banker.</li> <li>Examples include Provident Funds and Small Savings.</li> <li>This money does not belong to government but is to be returned to the depositors.</li> <li>The expenditure from this fund need not be approved by the parliament.</li> </ul>

## Fiscal Policy - Meaning and Objective

### Meaning:

1. Fiscal policy involves the use of **government spending, taxation and borrowing** to influence both the pattern of economic activity and level of growth of aggregate demand, output and employment.
2. Fiscal policy is in the nature of a demand-side policy.
3. An economy which is producing at full-employment level does not require government action in the form of fiscal policy.

### Objective of Fiscal policy:

1. Achievement and maintenance of full employment,
2. Maintenance of price stability,
3. Acceleration of the rate of economic development, and
4. Equitable distribution of income and wealth,

The importance as well as order of priority of these objectives may vary from country to country and from time to time.

### Discretionary fiscal policy

- 1) Discretionary fiscal policy refers to a **deliberate policy actions** on the part of the government to change the levels of expenditure and taxes to influence the level of national output, employment, and prices.
- 2) Discretionary Policies seek to address the GDP measure [i.e.  $GDP = C + I + G + (X - M)$ ], Where  $C$  = Private Consumption,  $I$  = Private Investment,  $G$  = Government spending,  $(X - M)$  = Net exports.
- 3) Governments can influence economic activity (GDP) by controlling  $G$  directly and influencing  $C$ ,  $I$ , and  $(X - M)$  indirectly through changes in taxes, transfer payments and expenditure policies.

### Non- Discretionary fiscal policy

- 1) Non- discretionary fiscal policy or automatic stabilizers are part of the structure of the economy and are **'built-in'** fiscal mechanism that operates **automatically** to reduce the expansions and contractions of the business cycle.
- 2) It occurs when there is changes in economic conditions cause government expenditures and taxes automatically.
- 3) Example: personal income tax, corporate income tax, and transfer payment.

### Explanation

1. **Automatic Stabilizers during Recession when incomes are reduced**
  - a) **Progressive tax structure**
  - b) Government expenditures & **transfer payments**
2. **Automatic Stabilizers during Inflation/ Demand-pull inflation**
  - a) **Progressive tax structure**
  - b) Government expenditures & **transfer payments**

### Four Instruments/ tools of Fiscal Policies

#### Taxes

**Taxes determine the size of disposable income** in the hands of the general public.

Action during Inflation-  
Action during Recession



<b>Government expenditure</b>	<p>Government expenditures include:</p> <ol style="list-style-type: none"> <li>1. <b>current expenditures</b> to meet the day to day running of the government,</li> <li>2. <b>capital expenditures</b> which are in the form of investments made by the government in capital Equipments and infrastructure, and</li> <li>3. <b>Transfer payments</b> i.e. pension, unemployment allowance</li> </ol> <p><b>During a recession and impact of Multiplier</b></p> <p><b>During Expansion/ Inflation phase-</b></p> <p><b>There are two concepts of public spending during depression- 'pump priming' and 'compensatory spending'.</b></p> <ol style="list-style-type: none"> <li>1. Pump priming assumes that when private spending becomes deficient, certain volumes of public spending will help to revive the economy.</li> <li>2. Compensatory spending is said to be resorted to when the government spending is carried out with the obvious intention to compensate for the deficiency in private investment.</li> </ol>
<b>Public Debt</b>	<p><b>Meaning and Types:</b></p> <ol style="list-style-type: none"> <li>1. Public debt may be <u>internal</u> or <u>external</u>;</li> <li>2. when the government borrows from its own people in the country, it is called <b>internal debt</b>.</li> <li>3. When the government borrows from outside sources, the debt is called <b>external debt</b>.</li> <li>4. Public debt takes two forms namely, <b>market loans</b> and <b>small savings</b>.</li> <li>5. <b>In the case of market loans</b>, the government issues treasury bills and government securities .</li> <li>6. <b>The small savings</b> represent public borrowings, which are not negotiable and are not bought and sold in the market.</li> </ol> <p><b>Action During Inflation:</b></p> <p><b>Action During Recession:</b></p>
<b>Budget</b>	<p><b>Action during Recession:</b></p> <p><b>Action during Inflation:</b></p>

### Types of Fiscal

There are two basic types of Fiscal- **Expansionary and contractionary**

	Expansionary Fiscal policy	Contractionary Fiscal Policy
<b>When Used?</b>	<p>Expansionary fiscal policy is designed to <b>stimulate</b> the economy-</p> <ol style="list-style-type: none"> <li>1. During the contractionary phase of a business cycle.</li> <li>2. When there is an anticipation of a business cycle contraction.</li> </ol>	<p>Designed to <b>restrain</b> the levels of economic activity of the economy -</p> <ol style="list-style-type: none"> <li>1. During an Inflationary phase.</li> <li>2. When there is anticipation of a business-cycle expansion which is likely to induce inflation.</li> </ol>
<b>Scenario</b>	<ol style="list-style-type: none"> <li>1. Decline / slump in overall economic activity,</li> <li>2. Decline in Real Income (Real GDP)</li> </ol>	<ol style="list-style-type: none"> <li>1. Increase in Aggregate Demand (i.e. Demand-pull inflation)</li> <li>2. Increase in economic activities of</li> </ol>

	<ol style="list-style-type: none"> <li>3. Higher rates of unemployment</li> <li>4. Fall in aggregate demand (i.e demand-deficit recession),</li> <li>5. Production of lower quantity of goods and services</li> </ol>	<p>consumption and Investment, due to higher levels of disposable incomes with households and firms,</p> <ol style="list-style-type: none"> <li>3. higher factor prices, leading to higher cost of producing goods.</li> </ol>
Tools	<ul style="list-style-type: none"> <li>• Lower personal and corporate taxes,</li> <li>• Higher levels of Government spending.</li> <li>• Reduction in Government borrowing and</li> <li>• Higher budget deficit or reduced surplus</li> </ul>	<ul style="list-style-type: none"> <li>• Higher personal and corporate taxes</li> <li>• Reduced levels of Government spending</li> <li>• Increase in Government Borrowing, and</li> <li>• Smaller Budget deficit or higher surplus</li> </ul>
Gap	<ol style="list-style-type: none"> <li>1. A recessionary gap, also known as a contractionary gap, is said to exist if the existing levels of aggregate production is less than what would be produced with full employment of resources.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inflationary Gap or Expansionary Gap-</li> <li>2. It arises Aggregate demand rises beyond what the economy can potentially produce by fully employing its given resources.</li> </ol>

### National Debt

- A Nation's debt is the difference between its Total Past Deficits and its total Past surpluses
- If a government has borrowed money over the years to finance its deficits and has not paid it back through accumulated surplus, then it is said to be in Debt.
- A surplus budget reduces National Debt and a deficit budget will add to the National Debt.

### FISCAL POLICY FOR LONG-RUN ECONOMIC GROWTH

- When government supports building a modern infrastructure, the private sector is provided with the requisite overheads it needs.
- Government provision of public goods such as education, research and development etc. provide momentum for long-run economic growth.
- A well-designed tax policy that rewards innovation and entrepreneurship, without discouraging incentives will promote private businesses who wish to invest and thereby help the economy grow.

### Fiscal policy for Reducing Inequality

#### Means and Methods:

#### 1. Direct Tax:

#### 2. Indirect taxes

#### Government Spending on Expenditure:

1. Redistributing income from the rich to the poorer sections of the society.
2. Poverty alleviation programmes. free or subsidized medical care, education, housing, essential commodities etc. to improve the quality of living of poor
3. Infrastructure provision on a selective basis
4. Various social security schemes such as old-age pensions, unemployment relief.
5. Subsidized production of products of mass consumption
6. Public production and/ or grant of subsidies to ensure sufficient supply of essential goods, and
7. Strengthening of human capital for enhancing employability etc.

### Shortcoming and Limitations of Fiscal policy

1. **Timing Problem:** Discretionary fiscal policy may create more problems due to time delays (i.e lags) which include-
  - a) Recognition Lag- Delay in recognizing the economy's problems, and the need for Government Intervention,
  - b) Decision Lag- Delay in evaluating the possible alternative policies, and in deciding the most appropriate policy
  - c) Implementation Lag- Delay in evaluating the possible alternative policies, and in deciding the most appropriate policy,
  - d) Impact Lag- outcomes of a policy are not visible for some time.
2. The effect of this is that Fiscal Policy changes may at times be badly timed, so that it is highly possible that an expansionary policy is initiated when the economy is already on a path of recovery and vice-versa
3. **Government constrains:**
  - Difficulties in instantaneously changing governments' spending and taxation policies.
  - Difficult to reduce government spending on various items such as defense and social security as well as on huge capital projects which are already midway.
  - Public works cannot be adjusted easily along with movements of the trade cycle because many huge projects such as highways and dams have long gestation period. Besides, some urgent public projects cannot be postponed for reasons of expenditure cut to correct fluctuations caused by business cycles.
4. There are **possible conflicts** between different objectives of fiscal policy.
5. Supply-side economists are of the opinion that certain fiscal measures will cause disincentives. For example, increase in profits tax may adversely affect the incentives of firms to invest and an increase in social security benefits may adversely affect incentives to work and save.
6. **Negative effect of Deficit financing:** Deficit financing increases the purchasing power of people. The production of goods and services, especially in under developed countries may not catch up simultaneously to meet the increased demand. This will result in prices spiraling beyond control.
7. Increase in government borrowing creates perpetual burden on even future generations as debts have to be repaid.
8. **"Crowding Out" Effect:** If Governments compete with the private sector to borrow money for spending, this may cause interest rates to go up. Firms' willingness to invest may be reduced. Individuals too may be reluctant to borrow and spend and the desired increase in Aggregate demand may not be realized.

### Crowding out

#### Meaning and Example:

1. When spending by government in an economy **replaces** private spending, the private sector is said to be crowded out. (Note: Government spending has to "Support" and "enhance" private spending not merely "replace" it.)
2. "Crowding out" effect is the negative effect that a fiscal policy may generate, when money from the private sector is "crowded out" to the public sector.



**Impact on Investment:**

1. **High Interest Rate-**
2. **Impact on market's ability of self-correction:**

**Positive Aspects-**

- a) during deep recessions, crowding-out is less likely to happen as private sector investment is already minimal and therefore there is only insignificant private spending to crowd out.
- b) Moreover, during a recession phase the government would be able to borrow from the market without increasing interest rates.

# CHAPTER- 8 MONEY MARKET

## 1. Money- Meaning and Basics

1. Money refers to assets which are commonly used and accepted **as a means of payment** or **Exchange medium of transferring purchasing power store of value**, which means people can save it and use it later—smoothing their purchases over time
2. For **policy purposes**, money may be defined as the **set of liquid financial assets** .
3. **Anything that would act as a medium of exchange is not necessarily money.**
4. **Currency which represents money does not necessarily have intrinsic value.**
5. In modern days, money is not necessarily a physical item; it may also constitute **electronic records**.
6. Fiat money is **materially worthless**, but has value simply because a nation collectively agrees to **ascribe a value to it**. In short, money works because people believe that it will.

## 2. Characteristics of Money

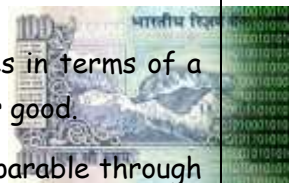
*Money, though not having any inherent power to directly satisfy human wants, by acting as a medium of exchange, it commands purchasing power and its possession enables us to purchase goods and services to satisfy our wants.*

Following are the important characteristics of Money-

- Generally **A**ceptable
- Durable or **L**ong-lasting
- Effortlessly **R**ecognizable.
- Difficult to **C**ounterfeit i.e. Not easily reproducible by people
- Relatively **S**carce, but has elasticity of supply
- **P**ortable or easily transported
- Possessing **U**niformity;
- **D**ivisible into smaller parts in usable quantities or fractions without losing value.

**There are few other features of money**

- **Better than barter:** money eliminates the need for **double coincidence of wants**.
- Money also facilitates Separation of transactions Both in **time and place**
- **Common Measure of value:** It is convenient to measure the prices of all commodities in terms of a single unit, rather than record the relative price of every good in terms of every other good.
- **Comparability:** Goods and services which are otherwise not comparable are made comparable through expressing the worth of each in terms of money.
- **Liquidity and Reversibility:** Additionally, money also commands reversibility as its value in payment equals its value in receipt. All assets other than money lack perfect reversibility in the sense that their value in **payment is not equal to their value in receipt**
- Liquidity refers to the extent to which financial assets can be sold at close to full market value at short notice. That is, they can easily be converted into another form of money, such as cash.



# Unit 2: Demand for Money

## 1. Demand for Money

- If people desire to hold money, we say there is demand for money.
- As we are aware, the demand for money is in the nature of derived demand .
- The Demand for Money is because of two reasons-
  - Demand for **liquidity and demand to store value**.
  - People wish to have **command over real goods and services** with the use of money.
- Demand for money has an important role in the determination of **interest, prices** and **income** in an economy.



## 2. Variables/ Factors on which Demand for Money depends

Sr. no	Factor	Nature of relationship
1	Income and Expenditure	Direct
2	General price Index	Direct
3	Interest (Opportunity cost)	Inverse
4	Degree of Financial Innovation	Inverse

## 3. Theories of Demand for Money

### Theories of Demand for Money:

- Quantity theory of Money (QTM) - Classical Approach or Fisher's Approach
- Cash Balance Approach - Neo-classical Approach or Cambridge Approach
- Liquidity Preference Theory - Keynesian Theory

### Post Keynesian Theories -

- Inventory Approach- Baumol
- Friedman Theory, and
- Demand for Money as Behavior towards Risk-Tobin

## 4. Quantity Theory of Money [QTM]

- propounded by **Irving Fisher of Yale University** in his book '**The Purchasing Power of Money**' published in 1911.
- QTM demonstrate that there is **strong relationship between money and price level**.
- Fisher's version, also termed as '**equation of exchange**' or '**transaction approach**' is formally stated as follows :
- As per Fisher's approach-
  - **Quantity of Money demanded = price level (P) × Total volume of transaction (T)= Supply of Money (MV+M'V')**
  - **Therefore, MV= PT** (where only Actual money is considered and not credit money)
  - **And MV+M'V' = PT** (where both Actual and Credit money is used)( Credit money means demand deposits by bank)



Here,

- i.  $M$  = Total Amount of Money in circulation
- ii.  $V$  = Transaction Velocity of Circulation- means average number of times a **unit of money** is spent in purchasing goods and services
- iii.  $M'$  = Total quantity of Credit Money
- iv.  $V'$  = Velocity of Circulation of Credit money.
- v.  $P$  = Average Price Level
- vi.  $T$  = Total Number of Transactions-  $T$  is a function of national income. Since full employment prevails, the volume of transactions  $T$  is fixed in the short run.

5. Thus, more the number of transactions people want, greater will be the demand for money.

### 5. Cash balance approach/ Neo classic Approach/ Cambridge approach

1. In the early 1900s, Cambridge Economists **Alfred Marshall**, **A.C. Pigou**, **D.H. Robertson** and **John Maynard Keynes** forward **neo-classical theory or cash balance approach**.
2. As per the Cambridge version the demand of the money is because of the following two reasons-
  - a) enabling the possibility of split-up of sale and purchase to two different points of time rather than being simultaneous. i.e. avoiding double coincidence of wants. since the sale and purchase of commodity does not place simultaneously, they need temporary abode of purchasing power, **Transaction need**
  - b) being a hedge against uncertainty. **Precautionary need**.
3. **Demand for Money = Proportion of income that people want to hold as cash ( $k$ )  $\times$  income ( $PY$ ).**  
 $(M^d) = k PY$

Where,

- $Y$  = Real national income
  - $P$  = Average price level of currently produced Goods & services
  - $PY$  = Nominal Income
  - $K$  = Proportion of  $PY$  that people want to hold as Cash Balances
4. The term '**k**' in the above equation is called '**Cambridge k**'. This represents the portion of nominal income that people want to hold as cash balance.
  5. Higher the income, higher will be the quantity purchased and thus greater money amount of money will be needed.

### Liquidity theory of demand/ Keynesian Theory of Demand for Money

'**Liquidity preference**', a term that was coined by **John Maynard Keynes** in his masterpiece '**The General Theory of Employment, Interest and Money**' (1936), denotes people's desire to hold money rather than securities or long-term interest-bearing investments.

According to Keynes, people hold money ( $M$ ) in cash for three motives:

- (i) Transactions motive,
- (ii) Precautionary motive, and
- (iii) Speculative motive.



#### Description

##### Transaction Motive

- a) It is need for cash for current transaction for **personal and business (trade) exchange**.
- b) This need arises due to timing gap between Receipt of Income and Planned Expenditures.

- c) This need is further classified into- i) Income motive (for individuals & households), and ii) Trade Motive (for Business Firms).
- d) Transaction Demand is directly related to the level of Income not affected by interest rates.
- e) Transactions Demand ( $L_r$ ) = Earnings ( $Y$ )  $\times$  Ratio of income which is kept for transaction purposes ( $k$ )
- f) Keynes considered the aggregate demand for money for transaction purposes as the sum of individual demand and therefore, the aggregate transaction demand for money is a function of national income.

#### Precautionary Motive

- a) Individuals & businesses keep a portion of their income to finance unforeseen, unpredictable and unanticipated Expenditures.
- b) Precautionary demand depends on the **size of income, prevailing economic & political conditions and personal traits of the individual such as Optimism / pessimism, farsightedness etc.**
- c) Precautionary Motive Cash Balances are considered **Income-Elastic** and by itself **not very sensitive to Rate of Interest.**

#### Speculative Motive

- a) This need reflects people's desire to hold cash, in order to be equipped to **exploit any attractive investment opportunity requiring cash expenditure.** i.e. to take advantage of favorable business situation
- b) The theory explains the portion of cash to be kept in asset portfolio depending upon the interest rate prevailing.
- c) Higher the interest rate, lower the speculative demand for money, and vice-versa.

#### Explanation

- According to Keynes, people demand to hold money balances to take advantage of the future changes in the rate of interest, which is the same as future changes in bond prices. It is implicit in Keynes theory, that the 'rate of interest',  $i$ , is really the return on bonds.
- Keynes assumed that the expected return on money is zero, while the expected returns on bonds are of two types, namely:
  - the interest payment
  - the expected rate of capital gain.
- The market value of bonds and the market rate of interest are inversely related. A rise in the market rate of interest leads to a decrease in the market value of the bond, and vice versa.
- Investors have a relatively fixed conception of the '**normal**' or '**critical**' interest rate  $R_c$  and compare the **current rate of interest  $R_n$**  with such 'normal' or 'critical' rate of interest

Situation	If current Rate ( $R_n$ ) > Critical Rate ( $R_c$ )	If Current rate ( $R_n$ ) < Critical Rate ( $R_c$ )
<b>Process</b>	Investors expect a fall in the Interest Rate (rise in Bond Prices), and now they will convert their cash into Bonds since- <ol style="list-style-type: none"> <li>They can earn high rate of return on Bonds.</li> <li>They expect Capital Gains resulting from a rise in Prices.</li> </ol>	Investors expect a rise in Interest Rate (fall in Bond Prices), and hence they hold their wealth in Liquid Cash because- <ol style="list-style-type: none"> <li>Loss, i.e Interest foregone is small.</li> <li>Anticipated capital losses (fall in prices) is avoided.</li> <li>Return on Money will be high than that on Bonds,</li> <li>Idle Cash held can be used to buy bonds at lower price and thereby.</li> </ol>

**Action**

Asset Portfolio would consist only of **Bonds**.

Asset portfolio would consist wholly of **Money/Cash**.

Summing up,

- ✓ so long as the current rate of interest is higher than the critical rate of interest, a typical wealth-holder would hold in his asset portfolio only government bonds,
- ✓ if the current rate of interest is lower than the critical rate of interest, his asset portfolio would consist wholly of cash.
- ✓ When the current rate of interest is equal to the critical rate of interest, a wealth-holder is indifferent to holding either cash or bonds.
- ✓ In this case discontinuity of Individual curve disappears & a continuous downward sloping function showing the Inverse Relationship between Interest Rate & Demand is obtained.

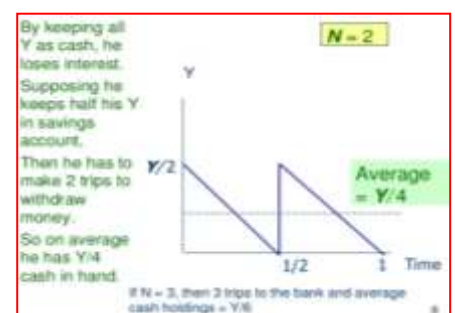
### The concept of Liquidity Trap

1. Liquidity trap is a situation when expansionary monetary policy (increase in money supply) does not increase the interest rate, income and hence does not stimulate economic growth.
2. It is a situation in which the general public is prepared to hold on to whatever amount of money is supplied, at a given rate of interest. They do so because of the fear of adverse events like deflation, war. In a liquidity trap, the monetary policy is powerless to affect the interest rate.
3. There is a liquidity trap at short term zero percent interest rate. When interest rate is zero, public would not want to hold any bond, since money, which also pays zero percent interest, has the advantage of being usable in transactions.
4. In other words, investors would maintain cash savings rather than hold bonds. The speculative demand becomes perfectly elastic with respect to interest rate and the speculative money demand curve becomes parallel to the X axis. This situation is called a 'Liquidity trap'.
5. Since the opportunity cost of holding money is zero, even if the monetary authority increases money supply to stimulate the economy, people would prefer to hoard money.
6. Consequently, excess funds may not be converted into new investment. The liquidity trap is synonymous with ineffective monetary policy .
7. The Bank of Japan's experience is a real-life example of the Keynesian economic theory of a liquidity trap.

## POST-KEYNESIAN DEVELOPMENTS

### 6. Inventory Approach

1. Baumol (1952) and Tobin (1956) developed a deterministic theory of transaction demand for 'real cash balance', known as Inventory Theoretic Approach.
2. Inventory models assume that there are two media for storing value-
  - a. money & interest-bearing alternative financial asset.
3. As per Baumol, receipt of income, say  $Y$  takes place once per unit of time but expenditure is spread at a constant rate over the entire period of time.
4. There is a fixed cost of making transfers between money and the alternative assets e.g. broker charges.
5. Individual or business firms try to hold optimum cash balance so that balance between opportunity cost and transaction cost is met.
6. As per Baumol model, optimum cash balance is given by  $(2AT/i)^{1/2}$ .





Where A= annual cash requirement

T= transaction cost/ transaction

I= interest/annum

## 7. FRIEDMAN'S THEORY

1. Milton Friedman (1956) extended **Keynes' speculative** money demand within the framework of asset price theory.
2. **Milton Friedman** (1956) treats the demand for money as for demand for **capital assets**.
3. Demand for money is affected by the same factors as demand for any other asset, namely
  - a) Permanent income.
  - b) Relative returns on assets. (which incorporate risk)

### Explanation:

As per Friedman there are Four determinant of demand-

Factor	Particulars
Permanent Income	<ol style="list-style-type: none"> <li>1. Friedman maintains that it is <b>permanent income</b> - and not current income as in the Keynesian theory - that determines the demand for money.</li> <li>2. Permanent income which is Friedman's measure of wealth is the present expected value of all future income.</li> <li>3. Permanent Income is calculated by discounting future cash incomes.</li> <li>4. discount rate, defined as the average return on the five assets, namely <b>money, bonds, equity, physical capital and human capital</b></li> </ol>
Price level	<ul style="list-style-type: none"> <li><input type="checkbox"/> If the price level rises the demand for money increases and vice versa.</li> <li><input type="checkbox"/> Thus, it's directly related to price level</li> </ul>
Opportunity cost	<ul style="list-style-type: none"> <li><input type="checkbox"/> Nominal demand for money rises if the opportunity costs of money holdings (i.e. returns on bonds and stock) decline and vice versa.</li> <li><input type="checkbox"/> Thus, there is an inverse relationship between demand for money and opportunity cost</li> </ul>
Inflation	<ul style="list-style-type: none"> <li><input type="checkbox"/> Nominal Demand for Money is influenced by inflation. A positive Inflation Rate reduces the real value of Money Balances, thereby increasing the opportunity cost of Money Holdings.</li> <li><input type="checkbox"/> Thus, there is an inverse relationship between demand for money and inflation</li> </ul>

## 8. Demand for money as a behaviour towards risk

1. According to Tobin, an individual's behaviour shows risk aversion. (risk avoiding behavior)
2. If an individual chooses to hold a greater proportion of risky assets such as bonds or shares in his portfolio - then higher average return but higher degree of risk.
3. Therefore, people prefer a mixed or diversified portfolio of money, bonds and shares, with each person opting for a little different balance between risk and return.

## Tobin's Liquidity Preference Function

**Basics of theory:** Tobin analysed that the **Risk - Avoiding behaviour of Individuals** provided the basis-

- a. For the Liquidity Preference, and
- b. For a negative relationship between the Demand for Money and the Interest Rate. If this payment is increased, Investor is willing to put a greater proportion of the Portfolio into the Risk Asset (i.e

Bonds) and thus a smaller proportion into money.

- c. Thus, Demand for Money is primarily based on the Portfolio Management Principles.

## Unit 3: Supply of Money

### 1. Meaning and introduction

1. "Money supply" denotes the **Total Quantity** of **Money** available to **the people in the economy**. The Quantity of money at any point of time is a measurable concept.
2. Supply of Money- Stock or Flow concept- It refers to the total amount of money **at any particular point of time**, thus it is a Stock Concept.
3. Change in the Stock of Money (i.e. increase or decrease per month or year), is a Flow Variable.
4. **Stock of Money in General Parlance**- Generally, Stock of money refers to the Stock of money available to 'Public' as means of payments and store of value. Such stock of money is always less than the Total Stock of Money that really exists in an Economy.

### 5. Meaning of Public-

The term 'Public' includes all Economic Units-	The term 'Public' excludes Producers of Money
<ol style="list-style-type: none"> <li>a) Households, Firms, and Institutions,</li> <li>b) Quasi-Governmental Institutions,</li> <li>c) Non- banking Financial Institutions,</li> <li>d) Non- Departmental Public Sector Undertakings,</li> <li>e) Foreign Central Banks and Foreign govt.</li> <li>f) International Monetary Fund which holds a part of Indian Money in India in the form of Deposits with RBI.</li> </ol>	<ol style="list-style-type: none"> <li>a) Government, which includes-               <ul style="list-style-type: none"> <li>• Central Government</li> <li>• All State Governments</li> <li>• <b>Local Bodies.</b></li> </ul> </li> <li>b) Banking System -               <ul style="list-style-type: none"> <li>• Reserve Bank of India &amp;</li> <li>• All banks that accept Demand Deposits (Note)</li> </ul> </li> </ol>

### Rationale of measuring supply of Money in Market-

Measurement of money is important because of two reasons-

1. Money supply analysis facilitates analysis of Monetary Developments to provide a **deeper understanding of the causes of Money Growth**.
2. It is important from monetary policy perspective as it provides a framework to evaluate **whether the stock of money in market is consistent with standard for price stability** and to understand nature of **deviation from standard**.
3. Also, the other reason is to **stabilize Price level and GDP growth**.

### 2. Sources of Money supply

Supply of the money in an economy depends upon-

- a) Decision of **central bank**, and
- b) The **supply responses of Commercial banking system** of country wrt. to policy of central bank. Commercial banks create **Credit Money** in an economy.

1. There are two broad sources of Money Supply, i.e **High Powered Money**, and **Credit Money**. These are explained as under-

	High Powered Money / Fiat Money i.e. Currency issued by the Central Bank	Credit Money, i.e. Money created by Commercial Banks
1	The <b>Central Banks</b> of all the countries are	Total Money Supply in the Economy is also

	<b>empowered to issue Currency.</b> Therefore, the Central Bank is primary source of Money Supply in all Counties.	determined by the extent of Credit created by the Commercial Banks.
2	The Currency issued by the Central Bank is ' <b>Fiat Money</b> ' and is backed by supporting <b>Reserves and its value is guaranteed</b> by the Government. ***	Banks create Money Supply in the process of borrowing and lending transactions with the public.

### Central Board Digital Currency and Crypto Currency

1. RBI is going step by step for the issuance of its own CBDC (Digital Rupee (e₹)), with minimal or no disruption to the financial system.
2. Reserve Bank broadly defines CBDC as the legal tender issued by a central bank in a digital form. It is akin to sovereign paper currency but takes a different form, exchangeable at par with the existing currency and shall be accepted as a medium of payment, legal tender and a safe store of value.
3. CBDCs would appear as liability on a central bank's balance sheet.

### 3. MEASUREMENT OF MONEY SUPPLY IN INDIA

1. From April 1977, following the recommendations of the Second Working Group on Money Supply (SWG), the RBI has been publishing data on four alternative measures of money supply denoted by M1, M2, M3 and M4 besides the reserve money. These are known as **Monetary Aggregates**.
2. Different aggregates represent different level of Liquidity. **M1 being most liquid and M4 being least liquid.**
3. The following table will explain what is included in Monetary Aggregates

Item	Computation
<b>M1 - Narrow Money</b>	Currency notes and coins with the Public + Net Demand Deposits of Banks (CASA Deposits) + Other Deposits with RBI. (Other than those held by government) Note: Net Demand Deposits = Total Demand Deposits <b>Less</b> Inter - Bank Deposits ( <b>Also refer note below</b> )
<b>M2</b>	MI + Savings Deposits with Post Office Savings Banks.
<b>M3- Broad Money</b>	MI + Net time Deposits with the Banking System.
<b>M4</b>	M3 + Total deposits with Post Office Savings banks (excluding National Savings Certificates)

1.

### NEW MONETARY AGGREGATES and LIQUIDITY AGGREGATES-

On the recommendations of the working' Group on Money (1998), RBI has started publishing 4 set of new Monetary aggregates on the basis of the Balance Sheet of the Banking Sector as per Progressive Liquidity Norms.

Reserve Money, NM1, NM2, NM3

1. **Reserve Money-** Reserve Money can be computed in two ways as under- Note: Net result is same in both.

Method 1 -	Method 2-
Currency in Circulation / held by public + Bankers' Deposits with the RBI - <b>Note:</b> These are	Net RBI Credit to Government +RBI Credit to Commercial Sector



Commercial Banks Deposits with RBI for maintaining Cash Reserve Ratio (CRR) & as Working Funds for clearing adjustments. +Other Deposits with the RBI	+RBI's Claims on Banks +RBI's Net Foreign Assets +Government's Currency Liabilities to the Public -RBI's Net Non- Monetary Liabilities.
--	--

- a) Reserve Money is also known as **Central bank Money, Base Money** or **High- Powered Money**.  
 b) Management of Reserve Money is important to stabilize Liquidity, Growth & Price Level in an Economy.

#### Currency with the Public

Add: Demand Deposits with the Banking System

Add: Other Deposits with RBI

#### New Monetary Aggregate 1 (denoted as NMI)

Add: Short term Time Deposits of Residents (including and up-to Contractual maturity of 1 Year)

#### New Monetary Aggregate 2 (denoted as NM2)

Add: Long term time deposits of Residents

Add: Call / Term Funding from Financial Institutions

#### New Monetary Aggregate 3 (Denoted as NM3)

Add: All deposits with the Post Office Savings Banks (excluding National Saving certificates)

#### Liquidity Aggregate 1 (Denoted as L1)

Add: Term Deposits with Term Lending Institutions and Re-financing Institutions

Add: Term Borrowing by Financing Institutions and Certificates of Deposits issued by Financing Institutions

#### Liquidity Aggregate 2 (Denoted as L2)

Add: Public Deposits of Non- Banking Financial Companies

#### Liquidity Aggregate 3 (Denoted as L3)

## 4. DETERMINATION OF MONEY SUPPLY

The alternative approaches in respect of determination of Money Supply, are as under-

1. According to the first view, money supply is determined **exogenously** by the central bank.
2. According to Second view money supply is determined **endogenously** by changes in the economic activities which affect people's desire to hold currency relative to deposits, rate of interest etc.
3. Accordingly, supply of nominal money in the economy is determined by the **joint behavior** of the central bank, the commercial banks and the public.

## Money Multiplier approach to supply of money- Milton Friedman & Anna Schwartz.

1. A one-rupee increase in the monetary base causes the money supply to increase by more than one rupee.
2. **Money multiplier m** is defined as ratio that relates change in money supply to the given change in monetary base. It denotes by how much money supply will change with change in monetary base

$$M = m \times MB$$

**Money Multiplier =  $1 / R$**

3. For example, if  $R = 10\%$ , the value of money multiplier will be 10. If the reserve ratio is only 5%, then money multiplier is 20.
4. Thus, the higher the reserve ratio, the less of each deposit banks loan out, and the smaller the money multiplier.

## Credit Multiplier approach to supply of money-

### 1. Credit Multiplier:

- It describes the amount of Additional Money created by Commercial Bank through the process of lending available Money in excess of the Reserve Requirement.
- It reflects the bank's ability to increase the Money Supply.
- It is also called "Deposit Multiplier" or "Deposit Expansion Multiplier".
- Credit Multiplier = 
$$\frac{1}{\text{Required Reserve Ratio}}$$

#### 1. Reserves may be as the result of-

- The regulations of the Central Bank (RBI) - referred as Statutory Reserves, or
- Decisions taken by the Commercial Banks themselves - referred as Excess Reserves.

#### 2. Excess Reserves and its Impact: Excess reserve represents the additional reserve maintained by commercial bank with RBI over and above the minimum required ratio to be kept. 'Excess reserves' are the difference between total reserves (TR) and required reserves (RR). Therefore, $ER=TR-RR$ .

- Excess Reserve is affected by the Cost and Benefits of holding such Reserves. For this purpose-
  - Cost** = Interest that could have been earned by giving these amounts as Loans, i.e Opportunity Cost,
  - Benefit** = Assurance as to adequate liquidity in the banking system, to meet withdrawal of Deposits by Public.
3. These costs and benefits are influenced by two factors, viz. **Market Interest Rates and Expected Deposits Outflows**, which have following impact-

Situation	Effect on excess Reserves
If interest rate increases	Banks will prefer to reduce Excess Reserves and give them as Loans to have higher earnings. So, the ratio of Excess Reserves to Deposits falls.
If Interest Rate decreases	Opportunity Cost of holding excess Reserves declines and Excess reserves will rise.
If deposit outflows are expected to increase	Banks will want more assurance against the possibility and will increase the Excess Reserves Ratio.
If deposit Outflows are expected to decrease	Decline in Expected Deposit Outflows will reduce Excess Reserves

Therefore, we conclude that the banking system's excess reserves ratio  $r$  is negatively related to the market interest rate.

## 5. DETERMINATION OF MONEY SUPPLY

Three factor as immediate determinants (also called as 'proximate determinants') of money supply are-

- the stock of high-powered money (H)
- the ratio of reserves to deposits or reserve-ratio  $r = \{\text{Reserves/Deposits } R/D\}$  and
- the ratio of currency to deposits, or currency-deposit ratio  $c=\{C/D\}$

### A. Stock of High- Powered Money (H)

- H (High-powered money) represents the behavior of the **Central Bank**.
- With all other variables unchanged, Total Supply of Nominal Money will **vary directly with the Supply** of Nominal High - Powered Money.

**B. Ratio of Reserves to Deposits (RDR)**

- RDR (Reserves to Deposits Ratio) represents the behaviour of the **Commercial Banks**, in determining Money Supply through "Credit Money".
- Thus the **Inverse relation exists**.

**C. Ratio of Currency to Deposits (CDR)**

- CDR represents the behaviour of the **General Public**, in determining Money Supply. It represents the behaviour of public to hold money in form of cash.
- The time deposit-demand deposit ratio i.e. how much money is kept as time deposits compared to demand deposits, also has an important implication for the money multiplier and, hence for the money stock in the economy. An increase in **TD/DD ratio** means that greater availability of free reserves and consequent enlargement of volume of multiple deposit expansion and monetary expansion.

**Impact of Other factors on Money Supply & Money Multiplier****Effect of Government expenditure on Money supply-**

- Whenever the Central and State Governments' cash balance falls short of the Minimum requirement, they are eligible to avail of the facility called **Ways & Means Advances (WMA) / Overdraft (OD) Facility**.
- When Government incurs expenditure, it involves debiting Government balances with RBI, and Crediting the Receiver (e.g. Salary Account of Employee) Account with the Commercial Bank.
- So, it results in generation of Excess Reserves, (i.e. excess balances of Commercial Banks with RBI).
- Excess reserves thus created can potentially lead to an increase in Money supply through the Money Multiplier process e.g. When the Employee uses this money for making payments for purchase of goods etc.

**Unit 4: Monetary Policy**

Reserve Bank of India uses **monetary policy** to manage **economic fluctuations** and **achieve price stability**, which means that inflation is low and stable.

Reserve Bank of India conducts monetary policy by adjusting the supply of money, usually through buying or selling securities in the open market.

When central banks lower interest rates, monetary policy is easing.  
When it raises interest rates, monetary policy is tightening.

**1. Monetary Policy**

- Meaning:** Monetary Policy refers to the use of **Monetary Policy Instruments** which are at the **disposal of the Central Bank** for achieving various objectives.
- Monetary Policy refers to-** **Action programme** of the Monetary Authorities (Generally central bank), to **control and regulate Demand & Supply** of Money with the Public and flow of credit, With the view to **achieve predetermined Macro-Economic Goals**.
- Monetary Policy encompasses all actions of the Central bank which are aimed at -
  - Directly** controlling the **Money supply**, and
  - Indirectly** at regulating the **Demand** for Money.



4. Monetary Policy is in the nature of "demand-side" Macro-economic Policy and works by stimulating or discouraging Investment and Consumption spending on Goods & services.

## 2. Monetary Policy Framework

In the execution of Monetary Policy, the Central Bank functions within a specified monetary policy Framework which has 3 components as under-

1. **Monetary Policy Objectives-** providing explicit Guidance to the Policy Makers.
2. **Analytics of Monetary Policy-** which focus on Transmission Mechanisms for implementation.
3. **Operating procedures-** which focus on operating targets and instruments.

### Monetary Policy Objectives

1. The Reserve Bank of India Act, 1934 in its preamble sets out the objectives of RBI as "to **regulate the issue of Bank notes** and the **keeping of Reserves** with a view to securing **Monetary Stability** in India generally to **operate Currency and Credit System** of the country to its advantage".
2. **Prima Objectives:** The most common objectives of Monetary Policy of the Central Banks across the World are -
  - **Price Stability-** Establishment and Maintenance of stability in Prices (or controlling inflation)
  - **Economic Stability-** Maintenance of Full Employment and achievement of high level of economy's growth
5. for the following objectives-
  - a. to **regulate** the availability, cost and use of Money & Credit,
  - b. to promote **economic growth**,
  - c. ensuring an adequate flow of credit to the productive sectors,
  - d. sustaining - a moderate structure of interest rates to encourage investments, and
  - e. creation of an efficient market for government securities.
  - f. to ensure **Price Stability**,
  - g. to achieve **optimum levels** of output and employment,
  - h. to obtain Balance of Payments **equilibrium**,
  - i. to ensure **stable currency**, or

### What is an Impact of Conflicting Objectives?

**Based on the pre-determined National Priorities**, the Monetary Policy Makers must exercise appropriate trade-offs to balance the conflicting objectives.

## 3. Analytics of Monetary Policy - Transmission Mechanism for Implementation

The process or **Channels** through which the **change of Monetary Aggregate** affects the level of **Product and Prices** is known as "Monetary Transmission Mechanism". It describes how policy - induced changes in the nominal Money Stock / Short - Term Nominal Interest Rates impact real variables like Aggregate Output and Employment.

In simple terms, the transmission can be summarised in two stages.

- i.Changes to monetary policy affect interest rates in the economy.
- ii.Changes to interest rates affect economic activity and inflation.

### A. Saving and Investment Channel

Monetary policy influences economic activity by **changing the incentives for saving and investment**.

- **Lower interest rates on bank deposits**- induce to **save Less** their money >>>> Induce to **spend their money more** on goods and services >>>>> encourage households to borrow more
- **Lower lending rates** - can increase investment spending by businesses as the cost of borrowing is lower >>>>> Increases demand too >>>>> returns on these projects are now more than the cost of borrowing.

### B. Cash-flow Channel

Monetary policy **influences interest rates**, which affects the decisions of households and businesses by changing the amount of cash they have available to spend on goods and services.

- A reduction in lending rates - reduces interest repayments on debt >>>>> increasing the amount of cash available for households and businesses >>>>>>leaving them with more disposable income.
- A reduction in lending rates - reduces the amount of income from deposits >>>>>> and restrict their spending.
- These two effects work in opposite directions, but a reduction in interest rates can be expected to increase spending in the Indian economy through this channel (with the first effect larger than the second)

### C. Asset Prices and Wealth Channel

- The asset prices and wealth channel typically affects consumption and investment.
- Lower interest rates support asset prices (such as housing and equities) by encouraging demand for assets than debt instruments.
- Higher asset prices also increase the equity (collateral) of an asset that is available for banks to lend against. This can make it easier for households and businesses to borrow.
- An increase in asset prices increases people's wealth. This can lead to higher consumption and housing investment as households generally spend some share of any increase in their wealth.

### D. Exchange Rate Channel

- The exchange rate can have an important influence on economic activity and inflation.
- It is typically more important for sectors that are export-oriented or exposed to competition from imported goods and services.
- If the Reserve Bank lowers the cash rate it means that interest rates in India have fallen compared with interest rates in the rest of the world
- Lower interest rates reduce the returns investors earn from assets in India. Lower returns reduce demand for assets in India, with investors shifting their funds to foreign assets (and currencies) instead.
- A reduction in interest rates (compared with the rest of the world) results in a lower exchange rate, making foreign goods and services more expensive compared with those produced in India. This leads to an increase in exports and domestic activity. A lower exchange rate also adds to inflation because imports become more expensive in Indian rupees.

**Effectiveness:** The effectiveness of different Channels function depends on

1. Stage of Development of the Economy, and
2. Underlying Financial Structure of the Economy.

## 4. Operating Procedures and Instruments

**Quantitative tools** - The tools applied by the policy that impact money supply in the entire economy, including sectors such as manufacturing, agriculture, automobile, housing, etc.

1. **Reserve Ratio** Banks are required to keep aside a set percentage of cash reserves or RBI approved assets. Reserve ratio is of two types:
  - a. **Cash Reserve Ratio (CRR)** - Banks are required to set aside this portion in cash with the RBI. The bank can neither lend it to anyone nor can it earn any interest rate or profit on CRR.
  - b. **Statutory Liquidity Ratio (SLR)** - Banks are required to set aside this portion in liquid assets such as gold or RBI approved securities such as government securities. Banks are allowed to earn interest on these securities, however it is very low.
2. **Open Market Operations (OMO)** -In order to control **money supply and inflation**, the RBI buys and sells government securities in the open market. These operations conducted by the Central Bank in the open market are referred to as Open Market Operations.
  - a. When the RBI sells government securities, the liquidity is sucked from the market,
  - b. when RBI buys securities the liquidity is injected from the market
  - c. The objective of OMOs are to keep a check on temporary liquidity mismatches in the market, owing to foreign capital flow.
3. **Qualitative tools** - Unlike quantitative tools which have a direct effect on the entire economy's money supply, qualitative tools are selective tools that have an effect in the money supply of a specific sector of the economy.
  - a. **Margin requirements** - The RBI prescribes a certain margin against collateral, which in turn impacts the borrowing habit of customers. When the margin requirements are raised by the RBI, customers will be able to borrow less.
  - b. **Moral suasion** - By way of persuasion, the RBI convinces banks to keep money in government securities, rather than certain sectors.
  - c. **Selective credit control** - Controlling credit by not lending to selective industries or speculative businesses.
4. **Market Stabilisation Scheme (MSS)** -
  - a. It was introduced following MOU between RBI and the Government of India with the primary aim of aiding the Sterilization Operations of RBI.
  - b. Sterilization is the process by which the Monetary Authority (RBI) sterilizes the effects of significant Foreign Capital Inflows on Domestic Liquidity, by off - loading a portion of the Stock of Government Securities held by it.
  - c. Government borrows from RBI (additional to its Normal Borrowing) and issues Treasury Bills / Dated Securities for absorbing the excess liquidity from the market arising from Large Capital Inflows. MSS absorbs the excess liquidity from the market
5. **Policy Rates** -
  - a. Fixed Repo Rate quoted for sovereign Securities in the overnight segment of LAF is considered as the Policy Rate. (India has many other Repo Rates in operation)
  - b. RBI uses this rate for balancing liquidity.
  - c. Its change gets transmitted through Money Market to the entire Financial System & alters all



other Short-Term Interest Rates & Influences aggregate Demand - key determination of level of Inflation & Economic Growth.

- d. If RBI wants to make it more expensive for banks to borrow money, it increases the Repo Rate. Similarly, if it wants to make it cheaper for Banks borrow money, it reduces the Repo Rate. In other words, an increase in the Repo Rate will lead to higher Liquidity and vice - versa, other things remaining constant.

6. **Bank rate** - The interest rate at which RBI lends long term funds to banks is referred to as the bank rate. However, presently RBI does not entirely control money supply via the bank rate. It uses Liquidity Adjustment Facility (LAF) - repo rate as one of the significant tools to establish control over money supply. Bank rate is used to prescribe penalty to the bank if it does not maintain the prescribed SLR or CRR.

7. **Liquidity Adjustment Facility (LAF)** - RBI uses LAF as an instrument to adjust liquidity and money supply. The following types of LAF are:

- Repo rate:** Repo rate is the rate at which banks borrow from RBI on a short-term basis against a repurchase agreement. Under this policy, banks are required to provide government securities as collateral and later buy them back after a pre-defined time.
- Reverse Repo rate:** It is the reverse of repo rate, i.e., this is the rate RBI pays to banks in order to keep additional funds in RBI.
- It is linked to repo rate in the following way: **Reverse Repo Rate = Repo Rate - 1**

8. **Marginal Standing Facility (MSF) Rate:** MSF Rate is the penal rate at which the Central Bank lends money to banks, over the rate available under the rep policy.

- Banks availing MSF Rate can use a maximum of 1% of SLR securities.**
- MSF Rate = Repo Rate + 1MSF Rate = Repo Rate + 1 .**

### Monetary Policy Framework Agreement (MPFA)

- The Reserve Bank of India (RBI) Act, 1934 was amended on June 27, 2016, for giving a statutory backing to the Monetary Policy Framework Agreement (MPFA) and for setting up a Monetary Policy Committee (MPC).
- It is an Agreement reached between the Government of India and RBI on the Maximum tolerable Inflation Rate that RBI should target to achieve price stability.
- The amended RBI 2016 Act provides for a statutory basis for the implementation of the 'Flexible Inflation targeting Framework'.
- Announcement of an Official Target Range for Inflation is known as Inflation Targeting.
- The Expert Committee under Urijit Patel, in January, 2014, suggested RBI abandoned the '**Multiple Indicator**' Approach and made Inflation Targeting the primary objective of its Policy.

### Inflation Target

- Inflation target is set once in every 5 years.
- Central Government has notified 4% Consumer Price Index (CPI) Inflation as the target for the period from 5 August 2016 to 31 March 2021 (Upper Tolerance Limit - 6%, Lower Tolerance Limit - 2%)
- RBI is mandated to publish a Monetary Policy report every 6 months, explaining the Sources of Inflation and the Forecast of Inflation for the coming period of 6 - 18 months.
- Following Factors are notified by the Central Govt. as constituting failure to achieve Inflation Target
  - Average Inflation > Upper Tolerance Level of Inflation Target for any 3 consecutive quarters, or
  - Average Inflation < Lower Tolerance level for any 3 Consecutive Quarters.

5. CPI is chosen for Inflation Target, since it closely reflects cost of Living and has larger influence on Inflation Expectation compared to other Indicators / Anchors.

### **9. Challenges in Implementation of Monetary policy**

Following are the main challenges in implementation of Monetary Policy

1. Rudimentary and Non - competitive Financial System
2. Lack of Integrated Money and Inter - Bank Markets,
3. Uncertainties surrounding the economy, due to both Internal & external sources.
4. Issues related to Operational Autonomy of the Central Bank
5. Extent of co-ordination between Fiscal and Monetary authorities.

# CH 9: INTERNATIONAL TRADE

## Distinction between International Trade and Domestic trade

Point	International Trade	Domestic Trade
<b>Meaning</b>	Exchange of goods, services, resources etc. between / amongst different countries.	Exchange of goods, services, resources, etc within domestic territory of a country.
<b>Persons</b>	Transactions between Residents of different countries.	Transactions between / amongst Residents of the same country.
<b>Currency</b>	2 or more currencies are involved.	Only one currency (Local Currency) is involved.
<b>Regulations</b>	This involves multiple Legal Systems, detailed documentation, procedural formalities, Trade Barriers, Shipping and Transportation issues etc.	This involves law of only one country and less documentation and procedural formalities.
<b>Tariff</b>	Customs Tariff is applicable.	Domestic Tariff/ taxes are applicable.

## Advantages and Disadvantages of International trade

Advantages	Disadvantages
<ol style="list-style-type: none"> <li>1. <b>Powerful stimulus to economic efficiency.</b></li> <li>2. Efficient use of productive resources.</li> <li>3. Provides access to new markets and new materials.</li> <li>4. Enables nations to acquire foreign exchange reserves.</li> <li>5. Opening up of new markets.</li> <li>6. Human resource development.</li> <li>7. Strengthens bonds between nations.</li> <li>8. <b>Wide range of Products.</b></li> <li>9. <b>Innovation.</b></li> <li>10. <b>Employment.</b></li> <li>11. <b>Competition.</b></li> </ol>	<ol style="list-style-type: none"> <li>1. Not equally beneficial to all nations.</li> <li>2. Economic exploitation by strong country.</li> <li>3. <b>Threatens local infant industries.</b></li> <li>4. Substantial environmental damage.</li> <li>5. Trade cycles and the associated economic crises get transmitted.</li> <li>6. Risky dependence of underdeveloped countries.</li> <li>7. Lack of transparency and predictability.</li> <li>8. Negative impact on <b>Labour class, exploitation of Resources, unsustainable production and consumption</b>, excessive exports may cause shortages of many, Import of <b>unwanted and harmful goods</b>.</li> </ol>

## Theories of International Trade

### A. Mercantilist approach- 16<sup>th</sup> and 18<sup>th</sup> century

1. Mercantilism, which is derived from the word mercantile, "trade and commercial affairs".
2. **Exports were viewed favorably** if they resulted in inflow of Gold, while Imports were not considered conducive for Balance of economic growth, since it resulted in outflow of Gold.
3. As per this approach one country can grow economically, only at the expense/ detriment of another, and there is no **"win-win"** favorable situation in International Trade. The Trade according to Mercantilism is **"Zero-Sum Game"**, as one country's gain is the other Country's loss.

### 1.2.2 The Theory of Absolute Advantage

*(they get more from international trade from what they can get doing production individually)*

1. Theory of Absolute Cost Advantage was propounded by **Adam Smith**
2. Under this Theory, an exchange of goods will take place **only if each of the two countries can**



produce one commodity at an absolutely lower production cost than the other country.

3. Each Country which has an absolute advantage over another country in the production of **an item**, can trade such item, and hence gain in terms of International Trade.
4. Absolute Advantage refers to the ability of a Party (an Individual, a firm, or Country) to produce more of a good or service than the competitors, using the same amount of resources.
5. **Assumptions of the Absolute Advantage Theory:**
  - a. Trade between the **two countries** and **two-commodity** framework for his analysis.
  - b. There is no transportation cost.
  - c. Used **labour as the only input**.
  - d. He assumed that labour was mobile within a country but immobile between countries.

### Comparative advantage theory- Ricardo's Theory

1. **David Ricardo** developed the classical theory of comparative.
2. The law of comparative advantage states that **even if one nation is less efficient than (has an absolute disadvantage with respect to) the other nation in the production of all commodities, there is still scope for mutually beneficial trade.**
3. The first nation should specialize in the production and export of the commodity in which its **absolute disadvantage is smaller** (this is the commodity of its comparative advantage) and import the commodity in which it's absolute disadvantage is greater (this is the commodity of its comparative disadvantage).
4. Because of comparative advantage, trade raises the living standards of both countries. Douglas Irwin (2009) calls comparative advantage "good news" for economic development.
5. This theory also assumed that Labour is the only factor of Production.

Advantages	Disadvantages
Trade can take place, even if one country has absolute disadvantage in both products.	It is too simplistic a Model to consider. It does not recognize many practical barriers to International Trade.
One country's Gain need not be another country's Loss.	Labour is considered as the only Factor Input in the analysis of Absolute Advantage.
This theory recognizes the importance of division of labour, specialization and consequent benefits.	It emphasizes only Supply-side conditions and ignores domestic demand in respective countries
Global output is maximized.	

### HECKSHER-OHLIN theory ( H-O Theory) or Modern Theory

1. This theory is also known as **factor-endowment theory of trade or Modern Theory of Trade.**
2. **Factor endowment means Availability of usable resources** including both natural and man-made means of production.
3. Accordingly, **international trade occurs because different countries have different factor endowment.**

4. The Heckscher-Ohlin (H-O) model studies the case that **two countries have different factor endowments under identical production function and identical preferences.**
5. If a country is a capital abundant one, it will produce and export capital-intensive goods relatively more cheaply than another country. Capital-abundant countries have comparative cost advantage in the production of goods that need capital-intensive technology.
6. According to this theory, international trade is but a **special case of inter-regional trade.**
7. The Heckscher-Ohlin Trade Theorem establishes that **a country tends to specialize in the export of a commodity whose production requires intensive use of its abundant resources and imports a commodity whose production requires intensive use of its scarce resources.** (this is the crux of the theory)
8. *The Factor-Price Equalization Theorem states that international trade equalizes the factor prices between the trading nations. Therefore, with free trade, wages and returns on capital will converge across the countries.*

### Comparison of Theory of Comparative Costs and Modern Theory

Theory of Comparative Costs	Modern Theory
Difference between countries arises because of comparative costs of <b>Labour</b> and differences in productive efficiency of workers	Difference between countries arises because of differences in <b>factor endowments</b> . This is <b>2-factor model</b> and can be extended to more factors.
Based on <b>labour theory of value</b>	<b>Based on money cost</b> which is more realistic.
Treats international trade as <b>quite distinct from domestic trade</b>	International trade is only a special case of <b>inter-regional trade</b> .
<b>Normative</b> ; tries to demonstrate the gains from international trade	<b>Positive</b> ; concentrates on the basis of trade

### New Trade Theory

- ▲ American economist and journalist Paul Krugman received the 2008 Nobel Prize for Economics for his work in economic geography and in identifying international trade patterns.
- ▲ Krugman defended free trade. He was passionate and showed deep concern for the well-being of which can be understood from his book "In Praise of Cheap Labor," published in Slate in 1997.

### NEW TRADE THEORY (NTT)

**Concept:** New Trade Theory developed in the late 1970s and early 1980s focuses on the role of increasing returns to scale and network effects.

NTT explains that there are two reasons for advantages to countries by engaging in International Trade.

Economies of scale- supply side	Network effect - demand Side
<ol style="list-style-type: none"> <li>1. As a firm produces more of a product, its cost per unit keeps going down.</li> <li>2. So if the firm serves domestic as well as foreign market instead of just one, then it can reap the benefit of large scale of production consequently the profits are likely to be higher.</li> <li>3. They shall produce and export too.</li> <li>4. This happens because of governmental support and various other factors.</li> </ol>	<ol style="list-style-type: none"> <li>1. One person's value for a good or service is affected by the value of that good or service to others.</li> <li>2. The value of the product or service is enhanced as the number of individuals using it increases.</li> <li>3. This is also referred to as the 'bandwagon effect'. Consumers like more choices, but they also want products and services with high utility, and the network effect increases utility obtained from these products over others.</li> </ol>

4. A good example will be Mobile App such as What's App and software like Microsoft Windows.

## Unit 2 – Instruments of Trade Policy

1. Trade liberalization refers to opening up of domestic markets to goods and services from the rest of the world by bringing down trade barriers.

### Basics

**Meaning of Trade policy:** Policy that encompasses all instruments those governments may use to *promote or restrict imports and exports*.

**Objectives:** The main purpose of trade policy is typically to *restrict imports and/or encourage exports*.

Other objectives include:

1. The highest possible degree of free trade.
2. An efficient internal market and open trade policy.
3. A strengthened multilateral trade system the world trade organization (WTO)
4. Increasing trade among different countries and greater investment.

### Tariff

1. Tariffs, *also known as customs duties*, are basically *taxes or duties* imposed on import or export.
2. Tariffs are often identified with import duties.
3. **Purpose of tariff:** Tariffs are aimed at altering the relative prices of goods and services imported. Tariffs leave the world market price of the goods unaffected; while raising their prices in the domestic market.
  1. *To protect the domestic import-competing industries.*
  2. *The main goals of tariffs are to raise revenue for the government.*
3. Discourage import, increase price of imported goods and reduce volume of imported goods.

### There are few disadvantages of imposing tariff

1. Tariff decrease the volume of international trade.
2. The prospect of market access of the exporting country is worsened.
3. Tariffs discourage domestic consumers from consuming imported foreign goods.
4. Domestic market incorrectly increases prices than would be possible in the case of free trade.
5. Tariffs discourage efficient production in the rest of the.

### Forms of Import Tariff

- A. Specific Tariff (irrespective of Value):** A specific tariff is an import duty that assigns a **fixed monetary tax per physical unit** of the good imported.
- B. Ad valorem (on value):** An *ad valorem* tariff is levied as a **constant percentage of the monetary value** of one unit of the imported good.



- C. Mixed Tariffs:** It is the combination of **Specific tariff** or **Ad Valorem** tariffs.  
For example, duty on cotton: 5 per cent *ad valorem* Or Rs. 3000/per ton, whichever is higher.
- D. Compound Tariff or a Compound Duty:** Ad valorem + specific tariff. : Fixed + Variable  
For example: duty on cheese at 5 per cent *ad valorem* plus 100 per kg.
- E. Technical Tariff:** Duty is calculated on the components of the imported item  
1. E.g. Rs. 3000/ on each solar panel plus Rs.50/ per kg on the battery.
- F. Tariff Rate Quotas:** Imports entering under the specified quota portion are usually subject to a lower (sometimes zero) tariff rate. Imports above the quantitative threshold of the quota face a much higher tariff.
- G. Variable Tariff:** A duty typically fixed to bring the price of an imported commodity up to the domestic support price for the commodity.
- H. Escalated Tariff:** Duty Rates on raw materials, semi processed goods and final products are **progressively higher**.  
1. For example, a four percent tariff on iron ore or iron ingots and twelve percent tariff on steel pipes.
- I. A prohibitive tariff** is one that is set so high that no imports will enter.
- J. Anti-dumping Duties**
1. It is applicable when article is **imported at less than its nominal value**, foreign seller dumps goods in a country at less than sale prices in his market, or less than Full average cost.
  2. Dumping is done to
    - a) Constitutes international price discrimination.
    - b) Harms the domestic producers of the importing country.
    - c) drive out established domestic producers from the market and to establish monopoly position.
    - d) Promotes consumption of foreign goods at undesirable levels.
    - e) Affects national interest in certain situations.
- K. Safeguard Duties:** There may be genuine case where the other country is not dumping their product but actually producing at lower cost. This will still create negative effect in domestic economy of importing company.
- L. Countervailing Duties**
1. It is levied on imports from any country which pays directly or indirectly, **any subsidy on the manufacture, production** etc. of an article
- M. Tariffs as Response to Trade Distortions:** when some countries engage in 'unfair' foreign-trade practices, the affected importing countries, respond quickly by measures in the form of tariff responses referred to as "trigger-price" mechanisms.

- N. MFN Tariffs:** MFN tariffs are what countries promise to impose on imports from **other members of the WTO**, unless the country is part of a preferential trade agreement (such as a free trade area or customs union).
1. This means that, in practice, MFN rates are the **highest** (most restrictive) that WTO members charge one another.
- O. Preferential tariff:** Under **Preferential Tariff** countries promise to give another country's products lower tariffs than their MFN rate. Many time even **nil rate**.
- P. Bound Tariff:** A bound tariff is a tariff which a WTO member binds itself with a **legal commitment not to raise it above a certain level**.
- Q. Applied Tariff:** An 'applied tariff' is the duty that is actually charged on imports on a most-favored nation (MFN) basis. Applied tariff can also be lower than Bound tariff.

### Non-Tariff Measures (NTM) and Non-tariff barriers (NTB)

- ▲ The non- tariff measures constitute the hidden or 'invisible' measures that interfere with free trade.

<ul style="list-style-type: none"> <li>▲ <b>Non-Tariff Measures (NTM) -</b></li> <li>a. These are policy measures, other than Ordinary Custom Tariff,.</li> <li>b. NTMs include regulations that <b>restrict trade</b> or that <b>facilitate higher trade</b>. These have a wider scope.</li> </ul>	<ul style="list-style-type: none"> <li>▲ <b>Non-tariff barriers (NTB) -</b></li> <li>a. Non-tariff barriers which are <b>simply discriminatory non-tariff measures</b> imposed by governments to favor domestic over foreign suppliers.</li> <li>b. NTBs are thus a subset of NTMs that have a 'protectionist or discriminatory intent'.</li> </ul>
---	---

- ▲ **Depending on their scope NTMs are categorized as Technical Measures & Non-technical Measures:**

- ▲ **Technical Measures:**

**Meaning-** Technical measures refer to **product-specific properties such as characteristics of the product, technical specifications and production processes**.

### TYPES OF TECHNICAL NTMs

#### Technical Barriers to Trades- (TBT)

1. Technical Barriers to Trade (TBT) cover **both food and non-food traded products**.
2. It refers to mandatory 'Standards and Technical Regulations' that define the specific characteristics that a product should have, such as its size, shape, design, labeling / marking / packaging, functionality or performance and production methods.

#### Sanitary and Phytosanitary (SPS) Measures

1. SPS measures are applied to protect human, animal or plant life from risks arising from additives, pests, contaminants, toxins or disease-causing organisms and to protect biodiversity.

#### Non-technical Measures:

**Meaning-** Non-technical measures relate to trade requirements; for example; *shipping requirements, custom formalities, trade rules, taxation policies*, etc.

It is further distinguished as-

1. **Hard measures** (e.g. Price and quantity control measures),
2. **Threat measures** (e.g. Anti-dumping and safeguards) and
3. **Other measures** such as trade-related finance and investment measures.

Furthermore, categorization also distinguish between-

1. **Import-related measures-** imposed by the importing country, and
2. **Export-related measures-** imposed by the exporting country itself.
3. **Procedural obstacles (PO)** which are practical problems in administration, transportation, delays in testing, certification etc. that may make it difficult for businesses to adhere to a given regulation.

### TYPES OF NON-TECHNICAL NTMs

#### Import Quotas

1. **Import quota** is a direct restriction which specifies that only a certain physical amount of the good will be allowed into the country during a given time period.
  2. **Binding Quota** is set below the free trade levels of imports, is enforced by issuing licenses.
  3. **Absolute Quotas** of a permanent nature limit the quantity of imports to a specified level during a specified period of time and the imports can take place any time of the year. No condition is attached to the country of origin of the product.
  4. **A Tariff Rate Quota** When country allocation is specified, a fixed volume or value of the product must originate in one or more countries.
  5. **Unilateral Quota**, a country unilaterally fixes a ceiling on the quantity of the import of a particular commodity.
  6. **A Bilateral Quota** results from negotiations between the importing country and particular Supplier Country, or between the Importing Country and export groups within the supplier Country.
1. **Price Control Measures:** These are also known as 'para-tariff' measures.
  2. **Non-automatic Licensing and Prohibitions:**
  3. **Financial Measure:** The objective of financial measures is to increase import costs by regulating the access to and cost of foreign exchange for imports and to define the terms of payment.
  4. **State Trading:** These measures grant exclusive privileges an special preferences to a few Operators/ Agencies.
  5. **Local Content Measure:** These measures include rules on local content requirements that mandate a specified fraction of a final good should be produced domestically.
  6. **Distribution Restrictions:** Distribution restrictions are limitations imposed on the distribution of goods in the importing country involving additional license or certification requirements. These may relate to geographical restrictions or restrictions as to the type of agents who may resell.
  7. **Service Restrictions:** Producers may be restricted from providing after- sales services for exported goods in the importing country.
  8. **Procedural Obstacles:** There are procedural obstacles which increase the transaction costs thereby discouraging imports e.g. Licenses, Administrative Delay, Permission of Foreign Exchange Remittance etc.



9. **Licensing:** Prospective Importers are required to apply and obtain a license from the Licensing Authorities.
10. **Rule of origin:** Rules of origin are the criteria needed by governments of importing countries to determine the national source of a product.
11. **Embargos:** An embargo is a total ban imposed by government on import or export of some or all commodities to particular country.

### Exports related Measures

1. **Export Quotas:** A quota on the export of a product from a country.
2. **Ban on exports**
3. **Export tax**
4. **Export Subsidies**
5. **Voluntary Export Restraints (VERs):** Voluntary Export Restraints (VERs) refer to a type of *informal quota administered by an exporting country voluntarily restraining the quantity of goods that can be exported out of that country during a specified period of time.*

## Unit 3 – Trade Negotiation

### Trade Agreement

- a. **Trade negotiations-** It is a process in which Nations meet to discuss the possibility of trade, with the goal of reaching a Trade Agreement.
- b. The aim of both the nations is to reach mutual consciences and establish trade agreement and promote international trade.

### Types of Trade Agreements

1. **Unilateral trade agreements** under which an importing country offers trade incentives in order to encourage the exporting country to engage in international economic activities that will improve the exporting country's economy. E.g. Generalized System of Preferences.
2. **Bilateral Agreements** are agreements which set rules of trade between two countries, two blocs or a bloc and a country. These may be limited to certain goods and services or certain types of market entry barriers. E.g. EU-South Africa Free Trade Agreement; ASEAN-India Free Trade Area
3. **Multilateral Trade agreement** are the trade agreement between Many nations at one time
4. **Pluri-lateral trade agreement:** Agreement between more than two countries, but not many.
5. **Regional Preferential Trade Agreements** among a group of countries reduce trade barriers on a reciprocal and preferential basis for only the members of the group. E.g. Global System of Trade Preferences among Developing Countries (GSTP)

## General agreement on tariff and trade (GATT) 1948 to 1994

1. GATT is a Multilateral Trade Agreement created in January 1948 to achieve a broad, multilateral and free worldwide system of trading.
2. GATT governed international trade, working along with the **World Bank & International Monetary Fund**.
3. The Goods Council has **10 committees** dealing with specific subjects.
4. **The GATT lost its relevance by 1980s because**
  - a. It was **obsolete** to the fast-evolving globalization.
  - b. **International investments** had expanded substantially.
  - c. **Intellectual property rights** and trade in services **were not covered by GATT**.
  - d. The **ambiguities in the multilateral system** could be heavily exploited.
  - e. Efforts at liberalizing **agricultural trade were not successful**.
  - f. there were **inadequacies in institutional structure** and dispute settlement system
  - g. It was not a treaty and therefore terms of **GATT were not fully binding**

## World Trade Organisation (WTO) 1 July 1995.

### Introduction of WTO - Uruguay Round

1. The Round started in Punta del Este in Uruguay in September 1986. The final act concluding the Uruguay Round establishing the WTO Regime was signed 15 April 1994, during the ministerial meeting at Marrakesh, Morocco, and hence is known as the Marrakesh Agreement.

### WTO - Aim and Objectives

#### a. The WTO has six key objectives:

- (i) to **set and enforce rules** for international trade,
- (ii) to **provide a forum for negotiating** and monitoring further trade liberalization,
- (iii) to **resolve trade disputes**,
- (iv) to **increase the transparency** of decision-making processes,
- (v) to **cooperate with other major international economic** institutions involved in global economic management, and
- (vi) to **help developing countries** benefit fully from the global trading system.

### The Structure of the WTO

- a. The WTO activities are supported by a Secretariat located in Geneva, headed by a Director General.
- b. The WTO accounting for about 95% of world trade currently has 164 members, of which 117 are developing countries.

### MINISTERIAL CONFERENCE

1. It is the highest-Level Body, which can take decisions on all matters under any of the multilateral trade agreements.
2. It meets at-least once every two years.

### GENERAL CONFERENCE:

1. It acts as the Trade Policy Review Body and the Dispute Settlement Body. It refers to the

Ministerial Conference.

2. It meets several times a year.

#### **The Goods Council, Services Council, Intellectual Property**

1. These councils oversee the implementation of WTO Agreements in Goods, Services and IPRs.

2. These councils report to the General Council.

#### **Committees and Working Groups:**

1. There are many Specialized Committees working under each council (eg. 11 committees under Goods Council)

2. These committees deal with individual agreements and specific areas, eg. Membership Application, Development etc.

### **Guiding principles of WTO**

1. **Most-favoured-nation (MFN) Treatment:**

2. **National Treatment Principle (NTP)**

3. **Progressive Liberalization : Freer trade: gradually, through negotiation**

4. **Transparency**

a. WTO members are required- i) to publish their Trade Regulations, ii) to maintain institutions allowing for the review of administrative, iii) to respond to requests for information by other members, and iv) to notify changes in trade policies to the WTO.

b. These internal transparency requirements are supplemented and facilitated by periodic country- specific reports (Trade Policy reviews) through the Trade Policy review Mechanism (TPRM).

5. **No Quantitative Restrictions:**

6. **Protection of Domestic Industries** Trade control is permissible for protection of domestic industries, but only through Tariff Rates, which should be generally reduced through "reciprocal and mutually advantageous" negotiations.

7. **Market Access:**

8. **Protection of Health & Environment:**

9. **Dispute Settlement Mechanism**

### **WTO Agreement- An Overview of few**

The WTO agreements cover goods, services and intellectual property and the permitted exceptions. These agreements are often called the WTO's trade rules, and the WTO is often described as "rules-based", a system based on rules.

1. **Agreement on Agriculture**

2. **Agreement on the Application of Sanitary and Phytosanitary (SPS)**

3. **Agreement on Textiles and Clothing (ATC)** replaced the Multi-Fiber Arrangement (MFA)



4. Agreement on Technical Barriers to Trade (TBT)
5. Agreement on Trade-Related Investment Measures (TRIMs) -
6. Anti-Dumping Agreement
7. Customs Valuation Agreement
8. Agreement on Pre-shipment Inspection (PSI)
9. Agreement on Rules of Origin
10. Agreement on Import Licensing Procedures
11. Agreement on Subsidies and Countervailing Measures
12. Agreement on Safeguards
13. General Agreement on Trade in Services (GATS)
14. Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS):
15. Trade Policy Review Mechanism (TPRM)

➤ The most controversial topic in the Doha Agenda was agriculture trade.

### Concerns regarding WTO by Member countries

1. Real expansion of trade in the three key areas of **agriculture, textiles** and **services has been dismal.**
2. **Protectionism and lack of willingness** among developed countries **to provide market access.**
3. **Tariff escalation'**
4. Developing countries complain that they **face exceptionally high tariffs** on selected products
5. LDCs are hugely disadvantaged and vulnerable due to **lack of factor inputs, lack of capital, lack of infrastructure,** etc.
6. Significant issues like **Climate Change, high and volatile Food Prices,** and **energy production and consumption** are all issues that have not been effectively addressed.

## International Capital Movement

### Foreign Flow of Capital - This is far Wider than Foreign Investment

Foreign aid or assistance	Borrowings	Investments	Deposits from non-resident Indians (NRI)
Tied aid with strict mandates regarding the use of money	Direct inter government loans	Foreign direct investment (FDI)	
Untied aid where there are no such	External commercial borrowing		
voluntary transfer stipulations from institutions like IMF, WB	Soft Loans for e.g. from affiliates of World Bank such as IDA	Foreign portfolio investment (FPI) in bonds, stocks and securities	
Multilateral aid from many governments who pool funds to international organizations like the World Bank	Loans from international institutions (e.g. world bank, IMF)		

Bilateral or direct inter government grants.	Trade credit facilities		
--	-------------------------	--	--

## Foreign Direct Investment (FDI)

1. **Meaning** - Foreign direct investment is defined as a process whereby the **resident of one country** (i.e. home country) **acquires ownership of an asset in another country** (i.e. the host country) and such movement of capital involves **ownership, control as well as management** of the asset in the host country.
2. Direct investments are **real investments** in factories, assets, land, inventories etc.
3. It Has a **long-term interest** and therefore remains invested for long.
4. **Control** According to the IMF, the acquisition of **at least ten percent** of the ordinary shares or voting power in a public or private enterprise by non-resident investors makes it eligible to be categorized as foreign direct investment (FDI).
5. **Components:** FDI has three components-
  - (a) Equity Capital,
  - (b) Reinvested Earnings,
  - (c) Other direct Capital in the form of intra-company loans between Direct Investors (Parent) and Affiliate Enterprises.
6. **Who can be Foreign Direct Investors**
  - (a) Individuals,
  - (b) Private and Public Enterprises, incorporated or unincorporated
  - (c) Associated Groups of Individuals or Enterprises,
  - (d) Governments or Government Agencies,
  - (e) Estates, Trusts or other organizations, or
  - (f) Any combination of the above-mentioned entities.
7. **Modes or Forms of FDI**
  - (a) **Opening of a subsidiary or associate** company in a foreign country,
  - (b) **Equity injection** into an overseas company,
  - (c) **Acquiring a controlling interest** in an existing foreign company,
  - (d) **Mergers and acquisitions(M&A)**
  - (e) **Joint venture** with a foreign company.
  - (f) **Green field investment** (establishment of a new overseas affiliate for freshly starting production by a parent company).
  - (g) **Brownfield investments** (a form of FDI which makes use of the existing infrastructure by merging, acquiring or leasing, instead of developing a completely new one . For e.g. in India 100% FDI under automatic route is allowed in Brownfield Airport projects.

## Types of FDI

### Horizontal FDI

1. when the investor establishes the same type of business operation in a foreign country as it operates in its home country.
2. For example, a cell phone service provider based in the United States moving to India to provide the same service.



### Vertical FDI

1. A vertical investment is one under which the investor establishes or acquires a business activity in a foreign country which is different from the investor's main business activity yet in some way supplements its major activity.
2. For example; an automobile manufacturing company may acquire an interest in a foreign company that supplies parts



### Conglomerate FDI

1. A conglomerate type of foreign direct investment is one where an investor makes a foreign investment in a business that is unrelated to its existing business in its home country
2. For example; an automobile manufacturing company may acquire an interest in a foreign company that make furniture.



Yet another category of investment is '**two-way direct foreign investments**' which are reciprocal investments between countries. These investments occur when some industries are more advanced in one nation (for example, the computer industry in the United States), while other industries are more efficient in other nations (such as the automobile industry in Japan).

## Foreign Portfolio Investment (FPI)

1. **Meaning**- Foreign portfolio investment is the flow of '**financial capital**' rather than '**real capital**' and does not involve ownership, control, or management on the part of the investor.
2. **Concept** -FPI is a process in which the Resident of One Country (i.e Home Country) acquires ownership of **Financial Assets / Securities** in another country (i.e Host Company).
3. **Example** - European Citizen buying Bonds of Indian company in Indian Market.
4. **Characteristics of FPI**
  - (a) The singular intention of a foreign portfolio investor is to **earn a remunerative return through investment in foreign securities** and is primarily concerned about the safety of their capital, the likelihood of appreciation in its value, and the return generated.
  - (b) Such investors also **do not have any intention of exercising voting power or controlling or managing the affairs of the company** in whose securities they invest
  - (c) **Lower stake** in companies with their total stake in a firm **at below 10 percent**.
  - (d) FPI have **immediate impact on balance of payment** or exchange rate rather than on production or income generation.
  - (e) Portfolio investments are, to a large extent, expected to be speculative. Once investor confidence is shaken, such capital has a tendency to speedily shift from one country to another, occasionally creating financial crisis for the host country.

### Reasons/factor for FDI and FPI

1. **Higher rate of return:**
2. **Interdependency-**

### Factors discouraging FDI in host Country

- General**  
⇒ Political instability



<ol style="list-style-type: none"> <li>3. <b>Economies of scale-</b></li> <li>4. <b>Desire to control-</b></li> <li>5. <b>Risk diversification</b></li> <li>6. <b>Desire to control IPR-</b></li> <li>7. <b>Penetration into the markets ('getting behind the tariff wall').</b></li> <li>8. <b>Strategy to obtain control of strategic raw material</b></li> <li>9. <b>Labour cost advantage-</b></li> <li>10. <b>Tax differentials</b></li> <li>11. <b>Shared common language or common boundaries</b></li> </ol>	<ul style="list-style-type: none"> <li>⇒ Poor infrastructure</li> <li>⇒ Small size of market with lack of growth potential.</li> <li>⇒ Poor track-record of investments</li> </ul> <p><b>Macro-Economic Factors</b></p> <ul style="list-style-type: none"> <li>⇒ High rates of inflation</li> <li>⇒ Exchange rate volatility</li> <li>⇒ Low income levels and lower demand</li> </ul> <p><b>Labour related</b></p> <ul style="list-style-type: none"> <li>⇒ Poor literacy and low labour skills,</li> <li>⇒ Dominance of labour unions</li> <li>⇒ Language barriers</li> </ul> <p><b>Law/ Governance related</b></p> <ul style="list-style-type: none"> <li>⇒ Higher degree of Non - Tariff barriers</li> <li>⇒ Unfavorable tax regime</li> <li>⇒ Law not favorable to IPR protection</li> <li>⇒ Double taxation</li> </ul>
---	---

FDI in Host Country- Advantages	FDI in Host Country- Disadvantages
<ol style="list-style-type: none"> <li>1. <i>Labour</i></li> <li>2. <i>International capital supporting by domestic savings.</i></li> <li>3. <i>Technology up gradation</i></li> <li>4. <i>Domestic Industry becomes competitive</i></li> <li>5. <i>Access to Global Market</i></li> <li>6. <i>Domestic resources are utilised more efficiently</i></li> <li>7. <i>Consumer gets better goods at lower price</i></li> <li>8. <i>Competition among government to get FDI</i></li> <li>9. <i>Promotion of ancillary units/ support industries</i></li> <li>10. <i>Promote the exports of developing countries</i></li> <li>11. <i>Act as a source of new tax revenue</i></li> <li>12. <i>FDI reduces the established monopoly</i></li> <li>13. <i>Favourable impact on the host country's balance of payment position</i></li> <li>14. <i>Better work culture and higher productivity standards</i></li> </ol>	<ol style="list-style-type: none"> <li>1. <i>Labour class gets affected due to capital-intensive methods of production</i></li> <li>2. <i>Monopoly of foreign firm-</i></li> <li>3. <i>Domestic resources are ruthlessly exploited.</i></li> <li>4. <i>Transferring outdated technology.</i></li> <li>5. <i>Domestic Industry face stiff challenges -</i></li> <li>6. <i>FDI move towards regions or states which are well endowed in terms of natural resources, creating more regional disparity.</i></li> <li>7. <i>FDI may cause the domestic governments to slow down its efforts to generate more domestic savings and investment.</i></li> <li>8. <i>Foreign firms may partly finance their domestic investments by borrowing funds in the host country's capital market. 'Crowding-out' effect.</i></li> <li>9. <i>FDI usually involves domestic companies 'off-shoring', or shifting jobs and operations abroad in pursuit of lower operating costs and consequent higher profits..</i></li> <li>10. <i>Foreign entities are usually accused of being anti-ethical.</i></li> <li>11. <i>Adverse impact on the host country's commodity terms of trade</i></li> </ol>

### FDI in India

- ▲ **Routes for FDI** - An Indian Company can obtain FDI through-
  - a. **Automatic Route**- i.e without any prior approval of the Government or RBI.
  - b. **Approval Route**- i.e with prior approval of the Government
- ▲ **Instruments** - FDI can be obtained through issue of "FDI - Compliant instruments" viz **Equity Shares, fully and mandatorily Convertible Preference Shares and Debentures, Partly Paid Equity Shares and Warrants**, issued in accordance with the Companies Act 2013 and SEBI Guidelines, as applicable.
- ▲ **Prohibition** - In India, Foreign Investment is prohibited in the following sectors-
  - (a) Lottery Business including Government/ private Lottery, Online Lotteries etc
  - (b) Gambling and Betting including Casinos etc
  - (c) Chit Funds
  - (d) Nidhi Company
  - (e) Trading in Transferable Development Rights (TDRs)
  - (f) Real Estate Business or Construction of Farm Houses
  - (g) Manufacturing of cigars, Cheroots, Cigarillos and Cigarettes, of Tobacco or of Tobacco substitutes
  - (h) Activities / sectors not open to Private Sector Investment eg. Atomic Energy and Railway Operations (other than permitted activities)

### Overseas Direct Investment by Indian Business

1. There has been progressive relaxation of the capital controls and simplification of procedures for outbound investments from India.
2. As a result, Outbound Foreign Direct Investments (OFDIs) from India have undergone substantial increase in terms of size, geographical spread and sectorial composition.

## EXCHANGE RATE AND ITS ECONOMIC EFFECTS

- A. **Currency** - Currency is the **legal tender** of any country within its national Frontier buy or sell goods. Major traded currencies in the world are- Dollar, Yen, Pound and Euro
- B. **Home Currency** - A **country's own currency** is known as home currency / domestic currency.
- C. **Foreign Currency** - any currency **other than home currency** is a foreign currency.
- D. **Foreign Exchange** - A foreign currency transaction is a transaction that is denominated in or requires settlement in a foreign currency:
  - (a) buys or sells goods or services in a foreign currency.
  - (b) borrows or lends funds in a foreign currency.
  - (c) becomes a party to an unperformed forward exchange contract; or
  - (d) otherwise acquires or sells of assets, or incurs or settles liabilities, denominated in a foreign currency.

### E. Foreign exchange Market -

- The wide-reaching collection of markets and institutions **that handle the exchange of foreign currencies** is known as the foreign exchange market.
- Foreign exchange market comprises of buyers and sellers of foreign currency.

### F. Features of Foreign exchange Market -

- It is **a wide-reaching market** and operates **worldwide**.
- It is **largest market in the world** in terms of cash value traded.
- It is an **Over-the-Counter market** and not a physical place as such. (OTC)
- There is **no central trading location** and **no set hours** of trading.
- Market participants who demand and supply currencies represent themselves through their Banks and Key Forex Dealers.
- Forex Market operates on **very narrow spreads** between buying & selling prices.

### G. Vehicle Currency

- A currency that is **widely used to denominate international contracts** made by parties even when it is not the national currency of either of the parties. Example - Dollar/ USD

### H. Major Participants in Forex market and their role

- Central banks and Government**- To stabilize the excessive volatility in exchange rate
- Commercial banks - executing orders** from exporters, importers, investment institutions, insurance and retirement funds, hedgers, and private investors. Commercial banks also perform trading operations in their **own interests and at their own expense**.
- Foreign exchange Dealers**- Intermediaries between different dealers or banks.
- Arbitrageurs**- To earn profit by discovering price differences between pairs of currencies with different dealers or banks
- Speculators /Bulls or bears** - are deliberate risk-takers who participate in the market to make gains
- MNCs that engage in international trade and investments** -For normal trade
- Note:** Commercial Banks and Brokerage are also called market makers as they set their own exchange price too.

### I. Spot Exchange rate

- A spot exchange rate is the rate at which the currencies are being traded **for delivery on the same day**.

### J. Future Exchange rate

- Contracts to buy or sell currencies for **future delivery** which are carried out in forward and/or futures markets.
- The elements which get fixed on the date are- **rate of exchange, Amount and Date of execution**

### K. Forward Premium and Forward Discount

- A forward premium** is said to occur when the forward exchange rate is more than a spot trade rate. E.g.- Spot rate Rs/Dollar = 63 and future rate 67
- Forward discount** is where the trade is quoted at a lower rate than the spot trade. E.g.- Spot rate Rs/Dollar = 63 and future rate 61



L. **Bid rate/ Buying rate:** It is the rate at which the dealer is ready to buy the foreign currency in exchange for domestic currency. Therefore, it is the buying rate.

M. **Ask rate/ Selling rate :** It is the rate at which the foreign dealer 'asks' its customers to pay in local currency in exchange of the foreign currency. Therefore, it is the **selling rate or offer rate** at which foreign currency can be purchase from the dealer.

**Bid rate/Buying rate and Ask rate/selling rate is considered from banker's point**

#### N. Spread or Bid-Ask Spread

The **difference between bid price and the offer price** is called spread.

O. **Cross rate :** There may be two pairs of currencies with one currency being common between the two pairs and is called 'cross rate'

#### P. Base currency and Counter currency

- In an expression Currency of one country/ Currency of Another country, the currency in denominator is Base currency and that in numerator is Counter currency
- Therefor in Direct Quote FC is base currency and HC is counter currency.**
- Therefor in Indirect Quote HC is base currency and FC is counter currency**

#### Difference between Direct and Indirect Quote

Point	Direct Quote	Indirect Quote
<b>Meaning</b>	A Direct Quote is the number of units of a Local Currency exchangeable for <b>one unit of a Foreign Currency.</b>	An Indirect Quote is the number of units of a Foreign Currency exchangeable for <b>one unit of local Currency.</b>
<b>Also known as</b>	European Currency Quotation	American Currency Quotation
<b>Base Currency</b>	Foreign Currency (i.e. Rupee in the above case)	Local Currency (i.e. US \$ in the above case)
<b>Counter Currency</b>	Local Currency (i.e. US \$ in the above case)	Foreign Currency (i.e. Rupee in the above case)
<b>Relationship</b>	Direct quote= 1/Indirect Quote	Indirect quote= 1/ Direct Quote
<b>Example</b>	Rs. 67/ US \$ means 67 is required to buy 1	\$ 0.0143 per Rupee means 1 is obtained by selling \$ 0.0143

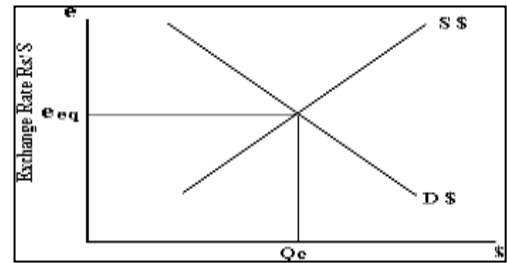
#### Arbitrage - Buy low sell high

##### Meaning

- Arbitrage refers to the practice of making **risk-less profits** by intelligently exploiting price differences of an asset at different dealing places.
- Outcome of Arbitrage:** On account of arbitrage, regardless of physical location, at any given moment, all markets tend to have the same exchange rate for a given currency.

### Determination of Exchange rate

Exchange rate is determined by **equilibrium of Demand and Supply**. RBI intervenes the market only to stabilize the exchange rate and prevent wide fluctuations.



Demand for Foreign currency arises due to	Supply of Foreign currency arises due to
<ul style="list-style-type: none"> <li>∂ <b>Purchase of goods and services</b> from another country- Import</li> <li>∂ <b>Unilateral transfers</b> such as gifts, awards, grants, donations or endowments</li> <li>∂ <b>Make investment</b> income payments abroad</li> <li>∂ <b>Purchase financial assets</b>, stocks or bonds abroad</li> <li>∂ Open a <b>foreign bank account</b> and</li> <li>∂ Acquire <b>direct ownership</b> of real capital</li> <li>∂ for speculation and hedging activities related to risk-taking or risk-avoidance activity.</li> </ul>	<ul style="list-style-type: none"> <li>∂ <b>Sale of goods and services</b> from another country- Export</li> <li>∂ Unilateral transfers <b>Inward</b> such as gifts, awards, grants, donations or endowments</li> <li>∂ <b>Receive investment income</b> payments abroad</li> <li>∂ <b>Sale financial assets</b>, stocks or bonds abroad</li> <li>∂ <b>Sale direct ownership</b> of real capital</li> </ul>

### Difference between HC appreciation and HC depreciation

The terms, 'currency appreciation' and 'currency depreciation' describe the movements of the exchange rate.

	Home Currency Depreciation (or Foreign currency appreciation)	Home Currency Appreciation (or Foreign Currency Depreciation)
<b>Meaning</b>	<ul style="list-style-type: none"> <li>a. Currency depreciates when its <u>value falls with respect to the value of another currency</u> or a basket of other currencies.</li> <li>b. Home-currency depreciation takes place when there is an increase in the home currency price of the foreign currency (or, alternatively, a decrease in the foreign currency price of the home currency).</li> </ul>	<ul style="list-style-type: none"> <li>a. Currency appreciates when its <u>value increases with respect to the value of another currency</u> or a basket of other currencies.</li> <li>b. Home-currency appreciation takes place when there is a decrease in the home currency price of foreign currency (or alternatively, an increase in the foreign currency price of home currency).</li> </ul>
<b>Cause</b>	<ul style="list-style-type: none"> <li>1. This arises when the Demand Curve for Foreign Currency shifts to the right representing increased demand for Foreign Currency, and Supply Curve remains unchanged.</li> <li>2. Where the DD curve remains same but the supply decreases</li> </ul>	<ul style="list-style-type: none"> <li>1. This arises when the Supply Curve for Foreign Currency shifts to the right representing increased supply for Foreign Currency, and Demand Curve remains unchanged.</li> <li>2. Where the DD curve remains same but the supply increases</li> </ul>

### Impact on Exporters and importers by Appreciation/ depreciation of currency

Situation	Type	Impact	Good or Bad
When Foreign currency appreciates	Exporter		
When Home currency appreciates	Exporter		
When Home currency depreciates	Importer		
When Foreign currency Depreciates	Importer		

### Devaluation Vs Depreciation

	Devaluation	Depreciation
Meaning	<b>Deliberate downward</b> adjustment in the value of a country's currency relative to another currency, group of currencies or standard.	Currency depreciates when its <u>value falls with respect to the value of another currency</u> or a basket of other currencies.
causes	Devaluation is caused by action of the Government/ central Bank/ Monetary authority/	Depreciation is caused when Demand increases with supply remaining constant or Where Demand is constant and Supply decreases
Regime	Applicable if <b>Fixed exchange rate Regime</b>	Applicable if <b>Floating exchange rate Regime</b>
Determinant	It is a monetary policy tool used by countries that have a fixed exchange rate or nearly fixed exchange rate regime	Determined by Market forces. Demand and supply forces determines the value of currency

*Revaluation is the opposite of devaluation and the term refers to a discrete raising of the otherwise fixed par value of a nation's currency.*

### Impacts of exchange rate fluctuations on domestic economy

#### 1. Export:

- (a) Home Currency Depreciates- Export Demand Increases.
- (b) Home Currency Appreciates- Export Demand decreases

#### 2. Imports:

- (a) Home Currency Depreciates- Imports decreases.
- (b) Home Currency Appreciates- demand for Imports increases.

#### 3. Domestic Inflation: (relate with Import)

- (a) Home Currency Depreciates- leads to Cost push Inflation.
- (b) Home Currency Appreciates- brings down Inflation.

#### 4. Domestic Demand:

- (a) Home Currency Depreciates- increases the demand for Domestic goods.
- (b) Home Currency Appreciates- reduces the demand for Domestic goods.

#### 5. Foreign currency Debt

- (a) Home Currency Depreciates- will lead to more HC outflow towards repayment of loan and



Principle.

- (b) **Home Currency Appreciates-** will lead to lesser HC outflow towards repayment of loan and Principle.

### 6. Inward remittance

- (a) **Home Currency Depreciates-** Depreciation increases such inflows.  
 (b) **Home Currency Appreciates-** Appreciation decreases such inflows

### 7. Current account

- (a) **Home Currency Depreciates-** If Export earnings rise faster than the Import Spending, then Current Account will improve.  
 (b) **Home Currency Appreciates-** Increasing imports and declining Exports cause larger deficits and worsen the Current Account balance.

## Exchange rate Regime

1. An exchange rate regime is the system by which a **country manages its currency in respect to foreign currencies**.
2. There are **three** broad categories of exchange rate systems.
  - (a) **Floating Exchange rate Regime:** In one system, exchange rates are set purely by private market forces with no government involvement. Values change constantly due to demand & supply of currencies.
  - (b) **Fixed Exchange rate Regime:** governments may seek to fix the values of their currencies, either through participation in the market or through regulatory policy
  - (c) **Managed Floating:** currency values are allowed to change, but governments participate in currency markets in an effort to influence those values.

## Floating rate Regime

### Meaning:

1. Determined by **demand for and supply of currency** relative to other currencies.
2. **Self-regulating**.
3. There is **no predetermined target rate**.
4. There is **no interference on the part of the government or the central bank**, except to moderate the rate of change and preventing undue fluctuations.

### Merits

1. Allows Central bank and /or government to pursue its **own independent monetary policy**
2. Floating exchange rate regime allows exchange rate to be used as a **policy tool**:
3. **Not required to maintain a huge foreign exchange reserve**.

### Demerits

1. Generate a **lot of uncertainties** in relation to international transactions.
2. Make international transactions riskier.
3. Contracts between buyers and sellers in different countries get affected by exchange rate changes in addition to business risk.

## Fixed rate Regime

### Concept

- a) A fixed exchange rate is also referred as *pegged exchange rate*.
- b) The Country's *Central bank and / or Government announces or decrees the Rate*, i.e. what its currency will be worth in terms of -
  - i) either other country's currency,
  - ii) a basket of currencies,
  - iii) Another measure of value, e.g. Gold.
- c) When a Government intervenes in the *forex Market* so that the Exchange Rate of its currency is different from what would have been determined by the free flow of market forces, it is said to have established a "*peg*" for its currency.
- d) To maintain the Rate at that announced level (called "Parity Value"), the *Central Bank and/or Government also regularly operates in the market* by buying (or selling) Foreign Reserves.

### Merits

- (a) *Avoids currency fluctuations and eliminates exchange rate risks*
- (b) *Greatly enhance international trade and investment.*
- (c) *A reduction in speculation on exchange rate.*
- (d) *Imposes discipline on a country's monetary authority.*
- (e) *The government can encourage greater trade and investment.*
- (f) *Exchange rate peg can also enhance the credibility of the country's monetary-policy.*

### Demerits

- a) The Central Bank and/or Government have to *maintain large reserves*.
- b) Market Forces of *Demand and Supply have no role* in determination of Equilibrium FX Rate.

## Managed Float Systems

- a) Exchange rates are still free to float, but governments try to influence their values. Government or central bank participation in a floating exchange rate system and intervene from time to time in the currency market to stabilize the fluctuations.

Hard Peg	The Central Bank sets a fixed and unchanging value for the Exchange Rate.
Soft Peg	The Exchange Rate is generally market determined, but if the Rates tend to be move speedily in one direction, the Central Bank will intervene in the market.
Floating Regime	Market determines the Exchange rate. Supply and Demand of Currency determines the rate of exchange

## Real rate and Nominal rate of Exchange

- (a) The 'real exchange rate' describes 'how many' of a good or service in one country can be traded for 'one' of that good or service in a foreign country. It is denoted by R.
- (b) Trade flows are affected not by nominal exchange rates, but instead, by real exchange rates.
- (c) A country's real exchange rate is a key determinant of its net exports of goods and services.

(d) The real exchange rate for single commodity is represented by the following equation:

$$\text{Real exchange rate (R)} = \text{nominal exchange rate} \times \frac{\text{domestic price}}{\text{Foreign Price.}}$$

(e) In contrast to the nominal exchange rate, the real exchange rate is always "floating", since even in the regime of a fixed nominal exchange rate E, the real exchange rate R can move via price-level changes.

(f) Rather than focusing on the nominal exchange rate, it is more sensible to monitor the real exchange rate when assessing the effect of exchange rates on international trade or export competitiveness of a country.

#### Nominal Effective Exchange rate (NEER) & Real effective exchange rate (REER):

(a) **Nominal Effective Exchange rate (NEER):** Unlike nominal and real exchange rates, NEER and REER are not determined for each foreign currency separately but against a whole basket of currencies.

(b) **Real effective exchange rate (REER):** A real effective exchange rate (REER) adjusts NEER by the appropriate foreign price level and deflates by the home country price level. The REER is NEER with price or labor cost inflation removed from it.



# CHAPTER 10: INDIAN ECONOMY

## STATUS OF INDIAN ECONOMY: PRE INDEPENDENCE PERIOD (1850 -1947)

### India's Economic Position between 1st and 17th Century

1. India is the largest economy of the ancient and the medieval world.
2. It controlled between **one third and one fourth** of the world's wealth.
3. The Economy is a hub for commerce, pilgrimage and administration.

### A. Handbook of Political Philosophy: Arthashastra - Period: 321-296 BCE

#### I. Features of the Book:

- a) 'Arthashastra' is the work **Kautilya (Chanakya)**.
- b) It is believed to be a kind of **handbook for King Chandragupta Maurya**, the founder of Mauryan empire.
- c) Arthashastra means **primarily, 'wealth' and, secondarily, 'the land'**.
- d) The major focus of the work is on the means of fruitfully maintaining and using land.
- e) Kautilya's writings relate to statecraft, political science, economic policy and military strategy.
- f) It contains the directives as to how to reign over the kingdom and encouraging direct action in addressing political concerns without regard for ethical considerations.
- g) Artha is **not** wealth alone; rather it encompasses all aspects of the **material well-being of individuals**.
- h) Taxes, which were charged equal for private and state-owned businesses.
- i) **True kingship**: The preservation and advancement of this good was comprised of seven vital elements, namely the **King, Ministers, Farmlands, Fortresses, Treasury, Military & the Allies**.

### The period of British rule can be divided into two sub periods:

#### The rule of East India Company from 1757 to 1858

- a) **Reversal of Indian Market** - From Exporter of Goods to exporter of RM
- b) **Tariffs Discriminatory**: This made the exports of finished goods relatively costlier and the imports cheaper.
- c) Hostile policy and Competition from Machine made goods:
- d) Drop in Demand for Indian goods, Shift towards Western goods and Culture.
  - Imbalance arose in Indian economy: this causes imbalance in the traditional village Economy.
- e) **List of situations where waves of colonialism have impacted as follows**
  - a) Large scale unemployment >> absence of alternate sources of employment >> dependency agriculture for livelihood >> sub division and fragmentation of land holdings >> subsistence farming >> reduced agricultural productivity and poverty >> imported goods made the survival of domestic industries more difficult >> Excessive pressure on land under tenancy >> zamindars got the opportunity to extract excessive rents >> low attention to productivity enhancing measures led to a virtual collapse of Indian agriculture.

### British government in India from 1858 to 1947

- a) The 'Modern' industrial enterprises in colonial India started to grow in the mid-19th century.
- b) **Cotton Mills:** With **9 million spindles** in the 1930s, India got **fifth position** globally.
- c) **Jute Mills:** **Largest** in the world, expanding rapidly in and around **Calcutta**
- d) **Iron Industry:** Ranking **eighth** in the world.
- e) Just before the Great Depression, India was ranked as the 12th Largest Industrialized country measured by the value of manufactured products.
- f) **Downturn in Producer goods Industries:**
  - i. Policy formulation in favor of britishers
  - ii. The share in the net domestic product (NDP) of the manufacturing sector had barely reached 7% even in 1946.

### INDIAN ECONOMY: POST-INDEPENDENCE (1947- 1991)

#### 1. Feature of Indian Economy immediately after Independence:

- a) Majorly had rural inhabited >> mostly illiterate >> poor population >> literacy just 18 % >> barely 32 years of life expectancy.

#### 2. Development Strategy - Nehruvian Model:

- a. The **Nehruvian model** supporting social and economic redistribution and industrialization.
- b. **Rapid industrialization** of the economy was the cornerstone of Nehru's development strategy. The concept of 'planned modernization'.
- c. **Centralized economic planning** and direction was at the core of India's development strategy supporting **equity and distributive justice.**
- d. **The Planning Commission of India** was established to particularly plan for the economic development of the nation in line with the **socialistic strategy.**
- e. This was carried through the **five-year plans.**

1948	<ol style="list-style-type: none"> <li>a. Expanded role for the public sector</li> <li>b. Licensing to the private sector.</li> <li>c. Granted state monopoly for strategic areas such as atomic energy, arms &amp; ammunition &amp; railways.</li> <li>d. The rights to new investments in basic industries were exclusively given to the state.</li> </ol>
1950	<ol style="list-style-type: none"> <li>a. Two Economic philosophies:               <ol style="list-style-type: none"> <li>1. PM Nehru's visualization - emphasis on heavy industry, and</li> <li>2. The Gandhian philosophy - small scale and cottage industry and village republics.</li> </ol> </li> </ol>
1950-1980	<ol style="list-style-type: none"> <li>a. India's average annual rate of growth of GDP- often referred to as the <b>'Hindu growth rate'</b>- <b>was a modest 3.5 percent.</b></li> <li>b. Green Revolution Initiative:               <ol style="list-style-type: none"> <li>i. The strategy for agricultural development till then <b>was reliance on institutional model.</b></li> <li>ii. India then faced two severe and consecutive droughts struck in 1966 and 1967..</li> <li>iii. The evolution of Green Revolution was successfully materialised. Green Revolution is called as Wheat Revolution, made us to overcome food problem.</li> </ol> </li> </ol>

- c. The economic performance during the period of 1965-81 is the worst because of-
- i. The license-raj, the autarchic policies in 1960s and 1970s,
  - ii. the external shocks such as three wars (in 1962, 1965, and 1971),
  - iii. major droughts (especially 1966 and 1967), and the oil shocks of 1973 and 1979
  - iv. India being practically a closed economy missed out on the opportunities created by a rapidly growing world economy.
- d. Consequence of Framing Interventionist policy**
- i. The government nationalized 14 banks in 1969 and 6 in 1980.
  - ii. The Monopolies and Restrictive Trade Practices (MRTP) Act, 1969 restricted the possibility of expansion of big business houses.

### Evolution of Economic Reforms

1. **Around 1980** - The seeds of early Liberalization and Reforms were sown.
2. Between 1981-1989- This Period named as **early liberalization** were specifically aimed at changing the prevailing thrust on 'in-ward oriented' trade and investment practices.
3. The early reforms of 1980's broadly covered three areas, namely **industry, trade and taxation.**

#### **a. List of Some Economic Reforms initiated before 1991:**

- (a) **Delicensing of 25 broad categories** of industries.
- (b) **Broad-banding** - firms may switch production between different production lines.
- (c) The ceiling limit of MRTP Regulations have been increased from **20 crore to 100 crore.**
- (d) Establishment of SEBI.
- (e) The open general licence (OGL) list was steadily expande.
- (f) Based on the real effective exchange rate (REER), the rupee was depreciated by about 30.0 per cent from 1985-86 to 1989-90.

#### **b. Challenges faced from Reforms:**

- The private investments were affected due to **complicated licensing policies, public sector reservations and excessive government controls.**
- **Reservation of goods to small scale sector** discouraged private investments.
- Inefficiency in government controls and bureaucratic procedures.
- Foreign investments and foreign competition were not allowed for protection to domestic industries.

### THE ECONOMIC REFORMS OF 1991

- ▲ India embarked on a bold set of economic reforms in **1991 under the Narsimha Rao government.**
- ▲ The causes attributed to the immediate need for such a drastic change are:
  - a. The fiscal initiatives of 1980s led fiscal deficit, making adverse balance of payments.
  - b. Persistent huge deficits led large government's expenditure towards interest payments.



- c. The surge in oil prices triggered by the gulf war in 1990.
  - d. The foreign exchange reserves touched the lowest point with a reserve of only \$1.2 billion which was barely sufficient for two weeks of imports.
  - e. India had to depend on external borrowing from the IMF.
  - f. The fragile political situation ballooned into what may be called a 'crisis of confidence'.
  - g. Collapse of the **Soviet Union and the spectacular success of China**, based on outward oriented policies were lessons for the Indian policy makers.
- ▲ The reforms, popularly known as liberalization, privatization & globalization had two major objectives:
1. **Reorientation of the economy** from a centrally directed and highly controlled one to a 'market friendly' or market oriented economy.
  2. **Macroeconomic stabilization** by substantial reduction in fiscal deficit.

### The policies can be broadly classified as :

1. **Stabilization measures** >>>> short term measures >>>to address the problems of inflation & adverse balance of payment
2. **Structural reform** >>>> long term and of continuing nature>>>> aimed at bringing in productivity and competitiveness by removing the structural rigidities in different sectors of the economy.
4. The prominent industrial policy initiatives were:
  - a. **Liberalisation:** Liberalisation refers to relaxation of previous Government restrictions usually in areas of social and economic policies.
  - b. **Areas of Liberalisation: Liberalization** i.e. economic reforms were introduced in four major sectors viz. -
    - ✓ Industrial Sector,
    - ✓ Financial Sector,
    - ✓ Foreign Trade / External Sector, and
    - ✓ Fiscal Policy.

### The Fiscal Reforms

Measures to this effect included:

1. Introduction of a **stable and transparent tax structure**,
2. Ensuring **better tax compliance**,
3. Thrust on **curbing government expenditure**
4. **Reduction** in subsidies and **abolition** of unnecessary subsidies
5. **Disinvestment of part of government's equity holdings** in select public sector undertakings and
6. Encouraging **private sector participation**.

### Monetary and Financial Sector Reforms

- ▲ The focus was mostly on **reducing the burden of nonperforming assets**. These included many measures, important among them are:
1. **Interest rate liberalization and reduction in controls on banks** by the RBI

2. **Opening of new private sector banks.**
3. Reduction in reserve requirements namely CRR and SLR.
4. **Liberalisation of bank branch licensing policy** and granting of freedom to banks in respect of opening, relocating or closure of branches

### Reforms in Capital Markets

- ▲ The **Securities and Exchange Board of India (SEBI)** which was set up in 1988 was given statutory recognition in 1992.

### The 'New Industrial Policy'

- ▲ The '**New Industrial Policy**' was announced by the government on **24 July 1991**.
  1. The New Economic Policy put an end to the '**License Raj**' by removing licensing restrictions for all industries except for 18. Consequently, 80 percent of the industry was taken out of the licensing framework.
  2. This is subsequently reduced to 5, namely, arms and ammunition, atomic substances, narcotic drugs and hazardous chemicals, distillation and brewing of alcoholic drinks and cigarettes and cigar.
  3. The MRTP Act was restructured.
  4. Many goods produced by small-scale industries have been de reserved enabling entry of large firms.
  5. Foreign investment was also liberalised. The concept of automatic approval was introduced for foreign direct investments up to 51 %.
  6. FDI is prohibited only in four sectors viz. retail trade, atomic energy, lottery business and betting and gambling.
  7. External trade was further liberalised by substituting 'the positive list approach' of listing license-free items on the OGL list with **the negative list approach.**
  8. In 1990-91, the highest tariff rate was 355% which came down to 10% with some exceptions such as automobile at 100%
  9. Rupee was devalued by 18% against the dollar.

### Trade Policy Reforms

- ▲ The trade policy reforms aimed at:
  - Dismantling of **quantitative restrictions** on imports and exports
- ▲ **Export duties were removed** to increase the competitive position of Indian goods.
- ▲ In 1991, India still had a fixed exchange rate system. In March 1992 the government decided to establish a dual exchange rate regime. From 1993 onwards, India has followed a managed floating exchange rate system.
- ▲ India enjoys a solid cushion of foreign exchange reserves close to eight months of import cover. India has one of the largest holdings of international reserves in the world.
  - \* Poverty has reduced substantially

- \* Value-added share of agriculture and allied activities has declined steadily over the past four decades.

## NITI AAYOG: A BOLD STEP FOR TRANSFORMING INDIA

### A. Background for NITI AAYOG:

- a. On 1st January 2015, the apex policy-making body namely Planning Commission, was replaced by the National Institution for Transforming India (NITI) Aayog.
- b. The major objective of such a move was to '**spur innovative thinking by objective 'experts' and promote 'co-operative federalism'** by enhancing the voice and influence of the states'.
- c. NITI Aayog is expected to serve as a 'Think Tank' of the government. [and] a 'directional and policy dynamo'.

### B. NITI Ayog will work towards the following objectives :

- a. **To evolve a shared vision** of national development with the active involvement of states.
- b. To foster **cooperative federalism**, recognizing that strong states make a strong nation.
- c. **Formulate credible plans** at the village level & aggregate these progressively at higher levels.
- d. To pay special **attention to the sections of our society**.
- e. To **design strategic and long-term policy and programme** frameworks.
- f. To provide **advice and encourage partnerships between key stakeholders** and national and international like-minded think tanks, as well as educational and policy research institutions.
- g. To create a **knowledge, innovation and entrepreneurial** support system.
- h. To offer a **platform for the resolution of inter-sectoral and inter departmental issues**.
- i. To maintain a **state-of-the-art resource centre**.
- j. To **actively monitor and evaluate the implementation of programmes** and initiatives.
- k. To focus on **technology up gradation and capacity building** for implementation of programmes.

### C. The key initiatives of NITI Aayog are:

- a. '**Life**' which envisions replacing the prevalent 'use-and-dispose' economy
- b. The **National Data and Analytics Platform (NDAP)** facilitates and improves access to Indian government data
- c. **Shoonya campaign** aims to improve air quality in India by accelerating the deployment of electric vehicles
- d. **E-Amrit** is a one-stop destination for all information on electric vehicles
- e. **India Policy Insights (IPI)**
- f. '**Methanol Economy**' programme is aimed at reducing India's oil import bill, greenhouse gas (GHG) emissions, and converting coal reserves and municipal solid waste into methanol, and
- g. '**Transforming India's Gold Market**' constituted by NITI Aayog to recommend measures for tapping into the potential of the sector and provide a stimulus to exports and economic growth

### D. Weaknesses of NITI AAYOG:

- a. NITI has a **limited role**
- b. It **does not produce National Plans, Control Expenditures, or Review state plans**.
- c. The major shortcoming of NITI is its **exclusion from the Budgeting Process**.



- d. It also lacks **Autonomy and Balance of Power** within the policy making apparatus of the central government.

## THE CURRENT STATE OF THE INDIAN ECONOMY: A BRIEF OVERVIEW

### The Primary Sector

1. Agriculture, with its allied sectors, is largest source of livelihood in India.
2. According to the latest estimates, **47 per cent of India's population is directly dependent** on agriculture for living.
3. India is world's largest producer of **milk, pulses, jute and spices**. India has the **largest area planted** under **wheat, rice and cotton**.
4. India has the **world's largest cattle herd (buffaloes)**..
5. It is the **second-largest producer of fruits, vegetables, tea, farmed fish, cotton, sugarcane, wheat, rice, cotton, and sugar**.
6. **Indian food and grocery market is the world's sixth largest**.
7. India is among the **top ten exporters of agricultural** products in the world.
8. Although the share of agriculture has been declining in overall gross value added (GVA) of India, it continues to grow in absolute terms.
9. Gross Value Added by the agriculture and allied sector **was 18.8% in 2021 -22** (until 31 January, 2022).
10. Ensure certainty of returns to the farmers through price support (The Minimum Support Price (MSP) of **all 23 mandated crops is fixed at 1.5 times** of all India weighted average cost of production)
11. Agricultural and Processed Food Export Development Authority (APEDA) is entrusted with the responsibility of export promotion of agri products.
12. The Government of India has allowed 100% FDI in marketing of food products and in food product E-commerce under the automatic route.
13. Large number of interventions is undertaken by different governments. A few such recent measures are:
  - ⤴ Income support to farmers through **PM KISAN**
  - ⤴ Launch of the **National Mission for Edible Oils**
  - ⤴ **Pradhan Mantri Fasal Bima Yojana (PMFBY)**
  - ⤴ **Mission for Integrated Development of Horticulture (MIDH)**
  - ⤴ Provision of **Soil Health Cards**
  - ⤴ **Parampara at Krishi Vikas Yojana (PKVY)** supporting and promoting organic farming, and improvement of soil health.
  - ⤴ **Promotion of Farmer Producer Organisations (FPOs)** to ensure better income for the producers through an organization of their own.
  - ⤴ **Per Drop More Crop (PDMC)** scheme to increase water use efficiency at the farm level
  - ⤴ Setting up of **E-NAM -a pan-India electronic trading portal** which networks the existing APMC mandis to create a unified national market for agricultural commodities.
  - ⤴ Introduction of **Kisan Rail** for improvement in farm produce logistics, and

14. Indian agriculture faces many issues such as:

1. Indian agriculture is dominated by **small and medium farmers with low farm productivity**. These also reduce their ability to participate in the **domestic as well as export market**.
2. Indian agriculture is **resource intensive, cereal centric and regionally biased**..
3. **Unscientific and wasteful agricultural practices**.
4. **Inadequate agro-processing infrastructure**
5. **Slow agricultural diversification**
6. Inadequate adoption of **environmentally sustainable and climate resistant** new farm technology
7. **Poor adoption of new agricultural technologies**
8. **Ineffective marketing, warehousing and credit delivery** of agricultural products.
9. **High food price volatility**
10. **Heavy dependence on monsoons** and loss of crops and livelihood due to vagaries of nature
11. **Inability to tap the full export potential** of primary as well as value added products
12. **Inadequate post-harvest infrastructure and management practices**
13. **Incidence of poverty and malnutrition**

### 10.7.1 The Secondary Sector

1. The Indian industry contributes about 30 % of total GVA by employing over 12.1 crores.
2. The industrial sector in India broadly comprises of manufacturing, heavy industries, fertilizers, pharmaceuticals, chemicals and petrochemicals, oil and natural gas, food processing, mining, defence products, textiles, retail, micro, small & medium enterprises, cottage industries and tourism. The share of informal sector in the economy is more than 50% of GVA.
3. The Department for Promotion of Industry and Internal Trade (DPIIT) has a role in the formulation and implementation of industrial policy and strategies for industrial development in conformity with the development needs and national objectives.
  - Introduction of GST on 1 July 2017 replaced many indirect taxes in India such as the excise duty, VAT, services tax, etc.
  - Reduction of corporate tax to domestic companies giving an option to pay income-tax at the rate of 22%.
  - 'Make in India' is a 'Vocal for Local' initiative launched in 2014.
  - 'Ease of Doing Business' - India ranks 63rd in the World Bank's annual Doing Business Report (DBR), 2020 as against 77th rank in 2019 registering a jump of 14 ranks.
  - The National Single Window System is a one-stop-shop for investment related support.
  - PM Gati Shakti - reducing logistics cost.
  - National Logistics Policy (NLP) launched in September 2022, aims to lower the cost of logistics.
  - The Production Linked Incentive (PLI) Scheme was initiated in March 2020 for 14 key sector.
  - FAME-India Scheme (Faster Adoption and Manufacturing of Hybrid and Electric Vehicles)
  - 'Udyami Bharat' aims at the empowerment of Micro Small and Medium Enterprises (MSMEs).
  - PM Mega Integrated Textile Region and Apparel (PM MITRA):

- 100 per cent FDI under automatic route is permitted for the sale of coal, and coal mining activities, including associated processing infrastructure and for insurance intermediaries.
- Foreign Investment Promotion Board (FIPB) was abolished in May 2017, and a new regime namely Foreign Investment Facilitation Portal (FIF) has been put in place.
- Remission of Duties and Taxes on Export Products (RoDTEP) 2021 formed to replace the existing MEIS (Merchandise Exports from India Scheme) to boost exports.
- Start-up India Programme acts as the facilitator for ideas and innovation in the country. India's rank in the Global Innovation Index (GII) has improved from 81st in 2015 to 40th in 2022.
- The Emergency Credit Line Guarantee Scheme (ECLGS) is a fully guaranteed emergency credit line to monitor lending institutions.

**There are many challenges to the industrial sector; a few of these are enumerated below:**

- ⤴ **Shortage of efficient infrastructure and manpower.**
- ⤴ **Reliance on imports, exchange rate volatility** and associated time and cost overruns
- ⤴ **The MSME sector is relatively less favorably placed** in terms of credit availability.
- ⤴ **Industrial locations established** without reference to cost-effective points tend to experience unsustainable cost structure.
- ⤴ **Heavy losses, inefficiencies, lower productivity** and unsustainable returns plaguing PSU.
- ⤴ **Lower export competitiveness**, slowing external demand and imposition of non tariff barriers by other countries.
- ⤴ **Inflation and associated macro economic developments** leading to input cost escalations and lower demand.
- ⤴ **Global slowdown** and related negative sentiments affecting investment.
- ⤴ **Aggressive tightening of monetary policy** and increases in cost of credit.
- ⤴ **High and increasing fuel prices**, and Mounting presence of informal sector .

### 10.7.3 The Tertiary Sector

India has the unique experience of bypassing the secondary sector in the growth trajectory by a shift from agriculture to the services sector.

India's services sector covers a wide variety of activities.

#### BOX 2. The broad classification of services as per the National Industrial Classification, 2008

1.	Wholesale and retail trade and repair of vehicles
2.	Transportation and storage
3.	Accommodation and food service activities
4.	Information and communication
5.	Financial and insurance activities
6.	Real estate activities
7.	Professional, scientific and technical activities
8.	Administrative and support services
9.	Public administration, defence and compulsory social security



10.	Education
11.	Human health and social work activities
12.	Arts, entertainments and recreation
13.	Other service activities
14.	Activities of households as employers, undifferentiated goods and servicesproducing activities of households for own use
15.	Activities of extra territorial organizations and bodies

1. The service sector refers to the industry producing intangible goods viz. services as output. The services sector is the largest sector of India and accounts for 53.89% of total India's GVA.
2. The production and consumption of information-intensive service activities such as computing, accounting, inventory management, quality control, personnel administration, marketing, advertising and legal services has increased manifold.
3. India is among the top 10 World Trade Organization (WTO) members in service exports and imports.
4. India's services exports have remained resilient during the Covid-19 pandemic. The reasons are the higher demand for digital support and need for digital infrastructure modernization.
5. The Indian services sector is the largest recipient of FDI inflows. FDI equity inflows into the services sector accounted for more than 60 per cent of the total FDI equity inflows into India.
6. India as the seventh largest recipient of FDI in the top 20 host countries in 2021. In 2021-22.
7. To ensure the liberalisation of investment in various industries, the government has permitted 100 per cent foreign participation in telecommunication services through the Automatic Route including all services and infrastructure providers.

CHAPTER 1:NATURE AND SCOPE OF BUSINESS ECONOMICS		
S.NO	ECONOMIST NAME	DEFINITION
1	<i>Adam Smith</i>	1. Economics is <b>an inquiry into the nature and causes of wealth of nations.</b> 2. Economics is a <b>science which deals with wealth.</b>
3	<i>Alfred Marshall</i>	1. Economics is a study of <b>mankind</b> in the ordinary business of life.{Welfare Definition.} 2. <b>Law of Demand</b> 3. <b>Law of diminishing Utility</b> 4. <b>Time Element</b>
4	<i>AC Pigou</i>	1. <b>Money Measurement concept</b> (Measuring Rod) 2. Price Discrimination 3. Modern business activities are based on the anticipations of business community and are affected by <b>waves of optimism or pessimism.</b> (CH-5)
5	<i>Lionel Robbins</i>	<b>Scarcity</b> Definition.
6	<i>Paul.A.Samuelson</i>	<b>Growth</b> Definition.
7	<i>Joel Dean</i>	Use of economic analysis to make business decisions involving the best use of an <b>organization's scarce resources</b>
8	<i>Prof. Boulding</i>	"Study of particular firm, particular household, <b>individual</b> price, wages, income, individual industries, particular commodities"-
9	<i>Prof.Mc.Connel</i>	"Macro Economics examines the Forest and not the Trees. <b>Large aggregates</b> "-
10	<i>Karl Marx And Frederic Engles</i>	1. Concept of <b>socialist economy.</b> 2. The <b>Communist Manifesto</b> in year <b>1848</b>
<b>Chapter 2:Theory Of Demand And Supply</b>		
11	<i>Hicks And Allen</i>	1. <b>Substitution Effect</b> 2. <b>Indifference Curve Analysis</b>
12	<i>James Dusesenberry</i>	<b>Demonstration Effect</b>
13	<i>Thorstein Veblen</i>	1. <b>Veblen Effect</b> 2. <b>Conspicuous Consumption</b>
14	<i>Robert Giffen</i>	<b>Giffen Goods</b>
15	<i>Olaf Helmer</i>	<b>Delphi Technique</b>
<b>Chapter 3:Theory Of Production And Cost</b>		
16	<i>James Bates And J.R.Parkinson</i>	"Production Is The <b>Organized Activity Of Transformation Of Raw Material Into Finished G&amp;S</b> to <b>Satisfy The Demand</b>
17	<i>Ricardo</i>	<b>Definition of land</b> - indestructible and permanent
18	<i>R.L.Marris</i>	Maximize the <b>firm balanced growth</b> rate
19	<i>Schumpeter</i>	Function of an entrepreneur is to do <b>innovation</b>
20	<i>H.A.Simon</i>	<b>Satisficing</b> behaviour
21	<i>Baumol</i>	<b>Sales revenue maximization.</b>
22	<i>A.A.Berle &amp; G.C.Means</i>	Manager enjoy discretionary <b>powers to set goals</b>
23	<i>Williamson</i>	Maximisation of <b>managerial utility function</b>

24	<i>Cyert &amp; March</i>	<b>5 Goals</b> -Profit goals, production goal, inventory goal, sales goal, market share goal
25	<i>Paul.H.Douglas &amp; C.W.Cobb</i>	Applies not to only individual firm but to the <b>whole of manufacturing industry</b> .
26	<i>Chamberlin</i>	Distinction between <b>selling cost and production cost</b>
27	<i>Frank Knight -</i>	Profit is the <b>reward for bearing uncertainties</b>
<b>Chapter 4: Meaning And Types Of Market</b>		
28	<i>Porf.Stigler</i>	<b>Defined oligopoly</b>
29	<i>Paul.A.Sweezy</i>	<b>Kinked demand curve</b>
30	<i>Cournot Model</i>	The firms control variable is <b>output</b> in contrast to price.
31	<i>Stackelberg Model</i>	The <b>leader commits to an output</b> before all other firms.
32	<i>Bertrand Model</i>	<b>Price</b> is control variable for firms and each firm is independently sets its price in order to maximize profits.
<b>Chapter 5: Business Cycle</b>		
33	<i>Keynes</i>	<b>Aggregate effective demand</b>
34	<i>Schumpeter</i>	<b>Innovation theory</b>
35	<i>Jm Keynes</i>	<b>Fluctuation in effective demand</b>
36	<i>Nicholas Kaldor</i>	<b>Cobweb theory</b> - holds that business cycles result from the fact that present prices substantially influence the production at <b>some future date</b> .
37	<i>Hawtrey</i>	Trade cycle is <b>purely monetary phenomenon</b>

<b>BCK SUMMARY</b>		
1	<i>Charles Darwin</i>	It is not the strongest of the species that <b>survive</b> , nor the most intelligent, but the <b>one most responsive to change</b> .
2	<i>Gluek &amp; Jauch</i>	<b>Business environment</b> includes <b>factors outside</b> the firm which can lead to opportunities for threats to the firm.
3	<i>Barry.M.Richman And Melvyn Copen</i>	<b>Environment factors</b> or constraint are <u><b>largely if not totally</b></u> ,external and beyond the control of individual industrial enterprises.
4	<i>Peter Drucker</i>	The <b>aim</b> of business is to <b>create and retain customer</b> .
5	<i>Dadabhai Naoroji</i>	Book " <b>Poverty and Un-British Rule in India</b> " drew attention to drain of wealth from India to Britain.
6	<i>J.P.Devadhar</i>	SEBI order can be appealed to securities appellate tribunal which is three member tribunal and headed



CHAPTER 1: NATURE AND SCOPE OF BUSINESS ECONOMICS		
Sno.	Concept	Formula
1	Total Utility	$TU = MU_1 + MU_2 + MU_3 + \dots + MU_{n^{th}} \text{ Units}$
3	Marginal Utility	1. Marginal Utility = $\frac{\text{Change in Total Utility } (\Delta TU)}{\text{Change in No. of Units Consumed } (\Delta Q)}$ . 2. $MU_n = TU_n - TU_{n-1}$
4	Consumer Equilibrium - Cardinal	$\frac{MU_x}{\text{Price}_x} = \frac{MU_y}{\text{price}_y}$
5	Consumer Surplus	1. What a consumer is ready to pay - what he actually pays. 2. Marginal Utility (MU) - Price
6	Consumer Equilibrium - Ordinal	$MRS_{xy} = MU_x / MU_y$
7	PRICE ELASTICITY {PERCENTAGE METHOD}=	$\frac{\% \text{ Change in quantity demanded}}{\% \text{ change in price}}$
8	Method of derivative	$\frac{-dq \times p}{dp \times q}$
9	Method of Graph	Lower segment/Upper segment
10	Arc Elasticity	$\frac{(q_1 - q_2) \times (p_1 + p_2)}{(q_1 + q_2) (p_1 - p_2)}$
11	Total Outlay Method	1. If Total expenditure & Price moving in same direction - Inelastic 2. If Total expenditure & Price moving in Opposite direction - Elastic 3. If total revenue remains unchanged - Unit elastic
12	Income Elasticity	$\frac{\% \text{ change in Demand}}{\% \text{ change in income}}$
13	Cross Elasticity	$\frac{\% \text{ change in Demand of good } x}{\% \text{ change in price of good } y}$
14	Advertisement Elasticity	$\frac{\% \text{ change in demand of commodity}}{\% \text{ change in advertisement expenditure}}$
15	Elasticity of supply- % Change method	$\frac{\% \text{ change in Quantity supplied}}{\% \text{ change in price}}$
16	Arc Elasticity	$\frac{(S_1 - S_2) \times (P_1 + P_2)}{(S_1 + S_2) (P_1 - P_2)}$
17	Method of derivative	$\frac{dq \times p}{dp \times q}$
18	Cobb-Douglas	$Q = KL^a C^{(1-a)}$

19	<i>Average Product</i>	$\frac{\text{Total product}}{\text{Quantity of input}}$
20	<i>Marginal Product</i>	<ol style="list-style-type: none"> <li><math>\frac{\text{Change in Total Product } (\Delta TP)}{\text{Change in No. of Quantity } (\Delta Q)}</math></li> <li><math>MP_n = TP_n - TP_{n-1}</math></li> </ol>
21	<i>Economic Costs</i>	Explicit Costs + Implicit Costs
22	<i>Marginal cost per unit</i>	<ol style="list-style-type: none"> <li><math>\frac{\text{Difference in Total Cost (TC) between two output levels}}{\text{Difference in Output Quantity at those levels}}</math></li> <li><math>\frac{\text{Difference in Total variable (TVC) of two units}}{\text{Difference in Output Quantity of two units}}</math></li> <li><math>TC_n - TC_{n-1}</math></li> <li><math>TVC_n - TVC_{n-1}</math></li> </ol>
23	<i>Total Cost</i>	<u>Total Fixed cost + Total variable cost</u>
24	<i>Average Total Cost</i>	<ol style="list-style-type: none"> <li><math>\frac{\text{Total Cost}}{\text{Total output}}</math></li> <li>Average Fixed cost + Average Variable cost</li> <li></li> </ol>
25	<i>Average Fixed cost- AFC</i>	$\frac{TFC}{Q}$
26	<i>Average Variable cost - AVC</i>	$\frac{TVC}{Q}$
27	<i>Total Revenue</i>	Price x Quantity (P x Q)
28	<i>Average Revenue</i>	<ol style="list-style-type: none"> <li><math>\frac{\text{Total Revenue}}{\text{Quantity}}</math> (TR/Q)</li> <li>Also Known as Price</li> </ol>
29	<i>Marginal Revenue</i>	<ol style="list-style-type: none"> <li><math>\frac{\text{Change in TR}}{\text{Change in Qty. sold}}</math></li> <li><math>TR_n - TR_{n-1}</math></li> <li>Marginal Revenue = Average Revenue (E - 1/E)</li> </ol>
30	<i>Accounting profit</i>	Total revenue - Explicit cost
31	<i>ECONOMIC PROFIT</i>	Total Revenue-(Explicit Cost + Implicit Cost)
32	<i>Profit maximisation condition</i>	<ol style="list-style-type: none"> <li><u>MC = MR</u></li> <li><u>MC Curve cuts MR from Below</u></li> </ol>