

# CA IPC & INTER

# Financial Management

*1 Day Marathon Revision*



**CA RAHUL GARG**

B.COM, FCA, LCS, ACMA, DISA (ICAI),  
CFA (ICFAI), MBA, ADV. DIP. MGT.

**ALL INDIA RANKHOLDER**

**in CA, CS, CMA (incl. AIR 1)**

**GOLD MEDALIST**

Tribute to my Beloved Elder Brother

SACHIN GARG

(Inspiration for me and all my students)

who left for heavenly abode on 3<sup>rd</sup> May, 2015





**"IF YOU WANT TO BE A LION,  
YOU MUST TRAIN WITH LIONS."**

**RANK Certificate for All India Rank 41 (May 06) in CA PE II Exam (now CA Inter)**

Roll No. 07389



# The Institute of Chartered Accountants of India

## Rank Certificate

*This is to certify that*

**RAHUL GARG**

*has passed the*

*Professional Education Examination - II*


*held by*

*The Institute of Chartered Accountants of India*

*in the month of* **MAY, 2006**

*and that he/she obtained* **FORTYFIRST** *rank*

*in that Examination.*

  
**Joint Secretary  
(Examinations)**

Date **29<sup>TH</sup> JULY, 2006**



**RANK Certificate for All India Rank 4 (June 08) in CS Inter Exam**



The Institute of  
**Company Secretaries** of India  
IN PURSUIT OF PROFESSIONAL EXCELLENCE  
Statutory body under an Act of Parliament

# *Certificate of Merit*

This is to certify that

**RAHUL GARG**

has passed all the papers of the  
**INTERMEDIATE EXAMINATION**  
of Company Secretaryship held in the month of

**JUNE, 2008**

and has secured

**FOURTH RANK**

in the order of merit in the said examination.

Date of Issue : *1st December, 2008*

Roll Number : *12715*

MC Number : *473*

Authorised Signatory

Secretary & CEO

**RANK Certificate for All India Rank 13 (June 09) in CS Professional (Final) Exam**



**THE INSTITUTE OF  
Company Secretaries of India**  
IN PURSUIT OF PROFESSIONAL EXCELLENCE  
Statutory body under an Act of Parliament

# *Certificate of Merit*

This is to certify that

**RAHUL GARG**

has passed all the papers of the  
**PROFESSIONAL PROGRAMME EXAMINATION**  
of Company Secretaryship held in the month of

**JUNE, 2009**

and has secured

**THIRTEENTH RANK**

in the order of merit in the said examination.

Date of Issue : *11 January, 2010*

Roll Number : *57870*

MC Number : *1,053*

  
\_\_\_\_\_  
Authorised Signatory

  
\_\_\_\_\_  
Secretary & CEO

RANK Certificate for **All India Rank 1** (June 08) in CMA Inter Exams

Regn. No. NRS/012986

*The Institute of Cost and Works Accountants of India*



This  
Rank Certificate  
is awarded to

**RAHUL GARG**

*for his/her having passed in one sitting all the subjects of the **Intermediate** Examination of The Institute of Cost and Works Accountants of India held in the month of **June 2008** and for his/her having secured the **First Rank**.*

*Given under the Common Seal of The Institute of Cost and Works Accountants of India, this Twenty fourth day of August, 2008.*



  
President

Institute's Gold Medal for **All India Rank 1** (June 08) in CMA Inter Exams

NRS/012986

No. 19

*The Institute of Cost and Works Accountants of India*



**This is to certify that**

*Rahul Garg*

*has been awarded the following prizes for his having passed the Intermediate Examination of the Institute of Cost and Works Accountants of India held in June 2008*

NAME OF THE PRIZE	PRIZE AWARDED FOR
Institute's First Prize for General Proficiency	Gold Medal for securing the highest total marks without exemption in <b>Intermediate (Revised) Examination – June 2008</b>
G. Indira Debi Memorial Gold Medal	For securing the highest total marks without exemption in <b>Intermediate (Revised) Examination – June 2008</b>
U.N. Sur Memorial Cash Prize	For securing the highest total marks without exemption in <b>Intermediate (Revised) Examination – June 2008</b>
A.K. Biswas Foundation Book Prize	For securing the highest total marks without exemption in <b>Intermediate (Revised) Examination – June 2008</b>
Northern Coalfields Limited Merit Award – Book Prize	For securing the highest total marks without exemption in <b>Intermediate (Revised) Examination – June 2008</b>
Bikramjit Majumdar Memorial Book Prize	For securing the highest total marks in Stage - I of <b>Intermediate (Revised) Examination – June 2008</b>

*Given under the Common Seal of the Institute of Cost and Works Accountants of India, this Twenty eighth day of January 2009.*



*Rahul Garg*  
President



RANK Certificate for **All India Rank 3** (June 09) in CMA Final Exams

90167

Regn. No. NRS/012986

*The Institute of Cost and Works Accountants of India*



This  
Rank Certificate  
is awarded to

**RAHUL GARG**

for his/her having passed in one sitting all the subjects of the *Final Examination* of The Institute of Cost and Works Accountants of India held in the month of **June 2009** and for his/her having secured the **Third Rank**.

Given under the Common Seal of The Institute of Cost and Works Accountants of India, this *Twenty Ninth day of August, 2009*.



President  
(G. N. VENKATARAMAN)

Chandigarh Toppers of  
Cost FM (May 2016)

1. Shreshtha (on Left) –  
91 Marks

2. Iram (on Right) – 73  
Marks



With ICAI(Cost)  
President Sh.  
Kunal Banerjee  
(for getting All India  
Rank 1)



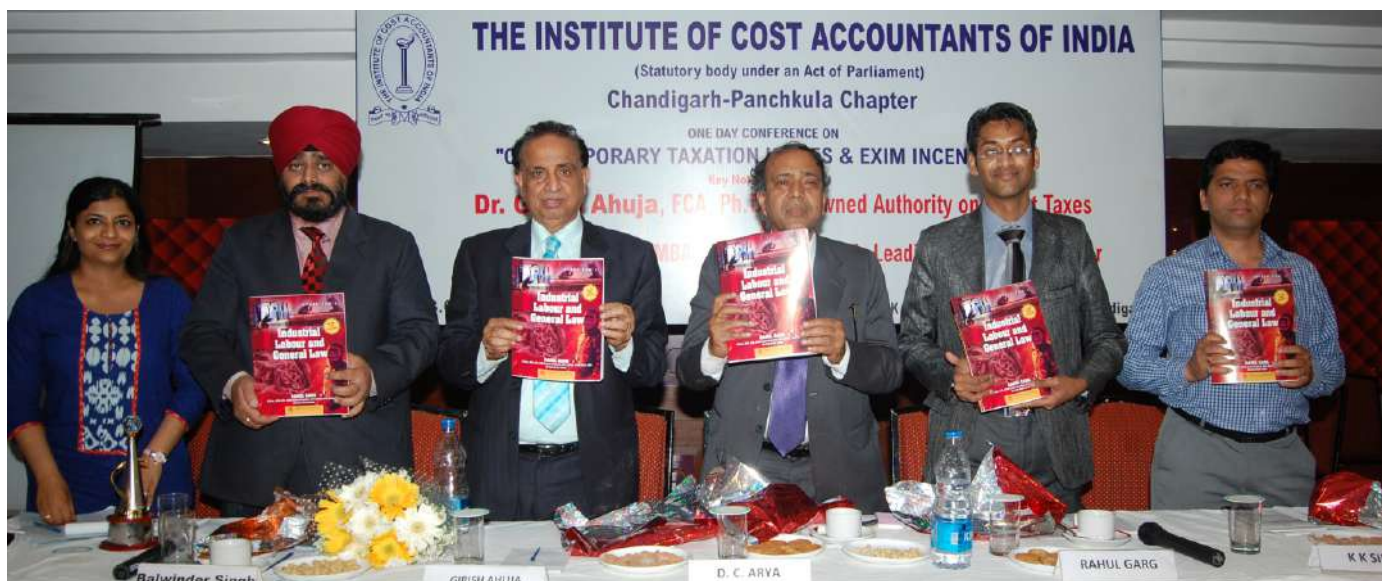
Awarded by Chief  
Justice Sh.  
P.N. Bhagwati in  
presence of Sh. Atal  
Bihari Vajpayee



Being Awarded with  
CA Degree by ICAI  
President Sh.  
Amarjit Chopra



“Economic & Labour Laws” book being released by Education Minister of UT Sh. VK Singh (IAS) in presence of then Chairman of Chandigarh chapter of ICAI, ICSI, ICAI (Cost)



“Industrial, Labour & General Laws” book being released by Dr. Girish Ahuja (A Renowned Personality in Direct Taxes) and Dr. D.C. Arya (Director Finance of Indian Railway)

## INDEX

<b>Chapter No.</b>	<b>Chapter Name</b>
1	Scope & Objective of FM
2	FD : Cost of Capital
3	FD : Leverage
4	FD : Capital Structure
5	FD : Theories of Capital Structure
6	Capital Budgeting
7	WCM : Estimation of Working Capital
8	WCM : Debtors Mgt.
9	WCM : Cash Mgt.
10	WCM : Working Capital Finance
11	Ratio Analysis
12	Sources of Finance
13	Cash Flow Statement
14	Fund Flow Statement
15	Time Value of Money
16	Risk Analysis in Capital Budgeting
17	Leasing
18	Dividend Decisions

## A brief about Rahul Garg

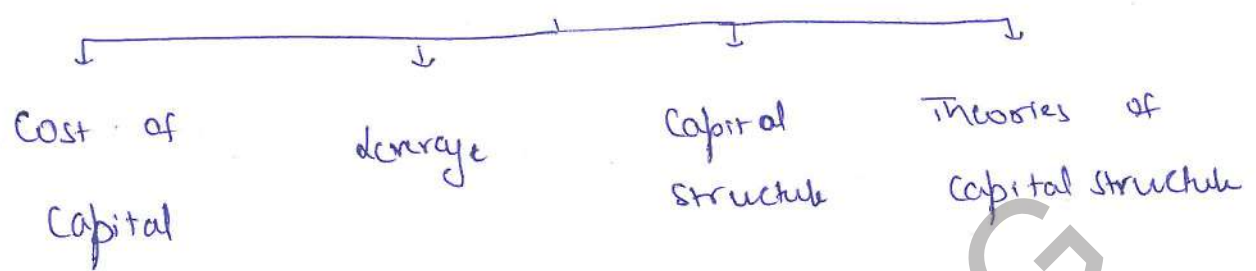
1. Broke **LIMCA BOOK OF RECORDS** by being youngest in India to clear all the 3 professional courses CA, CS, CMA at the age of 22 years 7 months.
2. **5 times All India Rankholder.**
3. Scored SINGLE DIGIT RANK 3 times (including **All India Rank 1**).
4. Undisputed achiever of all 3 professional exams with **ALL INDIA RANK in ALL.**
5. Achieved **exemption in 40+ papers** out of total 50 papers held by CA, CS, CMA institutes in his academic career.
6. Awarded by **Mr. Atal Bihari Vajpayee** in 2010 for exceptional performance in Academics.
7. One of the **best motivator** in India.
8. Covered by the National Magazine 'Career 360' amongst **12 National Toppers** in 2010.
9. Special **Time management** and **Stress management skills.**
10. Taught more than 10000 students.
11. Teaching Experience of almost 10 Years.
12. First in India to have more than **2,00,000 views** on Costing Video on Youtube.
13. First in India to have more than **1,00,000 views** on GST Video on Youtube.

## Love for the subject COST FM

1. First in India to provide **Multi Colour Theory** notes in Cost FM.
2. **Tabular** and **Diagrammatic presentation** of Theory to create interest.
3. Important points of theory Specially marked for **last minute revision**.
4. **Simple and lucid language** in theory for easy understanding.
5. Only one in India to cover more than **2300 Practical Questions** in Cost FM.
6. **100% coverage of Practical Questions in CA IPCC** Exams since May 2014 from Rahul sir's notes.
7. His student Shareshtha Kadian scored **91 Marks in Cost FM in May 2016**.
8. Focus on **100% conceptual clarity** and maximum practice of questions.
9. **Special focus on Presentation** and "How to Attempt" to score more than average marks.
10. His book '**Blast From The Past**' made available to students on Pan India Basis for free.

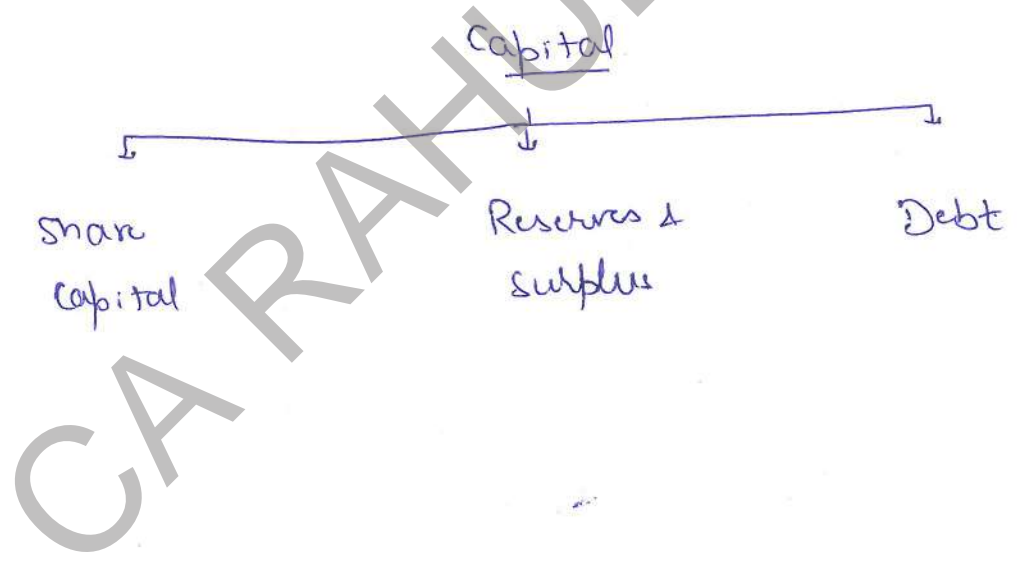
# Chapter - 1

## Financing Decisions



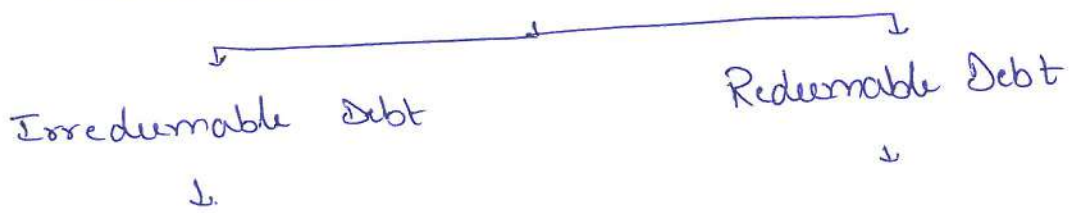
### Cost of Capital

It refers to the payment to be made to various sources of finance.



### Cost of Capital

## Cost of Debt ( $K_d$ )

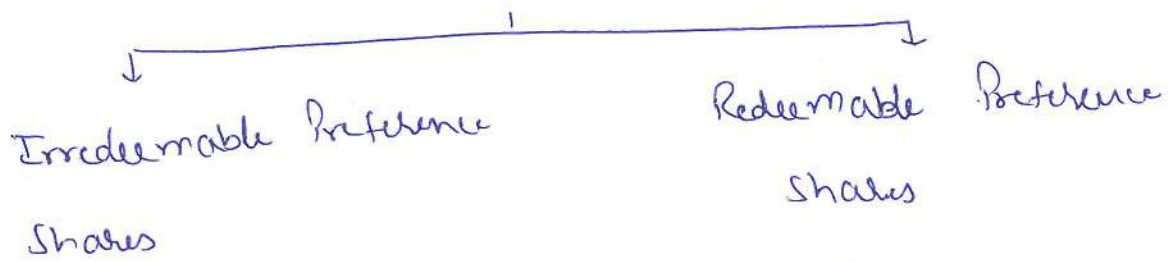


$$\frac{I(1-t)}{NP} \times 100$$

$$\left\{ \frac{I(1-t) + \frac{R_v - NP}{n}}{\frac{R_v + NP}{2}} \right\} \times 100$$

- $I$  = Interest Per Debenture (₹)
- $t$  = Corporate tax rate (%)
- $NP$  = Net Proceeds Per Debenture
- $n$  = life of debentures
- $R_v$  = Redemption value Per Debenture

## Cost of Preference shares (Kp)



$$\frac{D}{NP} \times 100$$

$$\left\{ \frac{D + \frac{RV - NP}{n}}{\frac{RV + NP}{2}} \right\} \times 100$$

D - Dividend Per share (£)

NP - Net Proceeds Per share (£)

n - life of Preference shares

RV - Redemption value Per Preference  
Share

Kp in Presence of CDT



## Cost of Equity Share Capital ( $K_e$ )

### (1) Dividend Yield Model

$$K_e = \frac{DPS}{MPS} \times 100$$

DPS - Dividend Per share (₹)

MPS - Market Price Per share (₹)

### (2) Earnings Yield Model

$$K_e = \frac{EPS}{MPS} \times 100$$

EPS - Earnings Per share (₹)

MPS - Market Price Per share (₹)

### (3) Dividend Growth Model

$$K_e = \left[ \frac{D_1}{P_0} + g \right] \times 100$$

$D_1$  = Dividend Expected Next Year

$$D_1 = D_0 (1 + g)$$

$D_0$  = Dividend Declared Previous Year

$g$  = Growth Rate

$P_0$  = Net Proceeds Per share or  
Market Price Per share

(4) Earnings Growth Model

$$K_e = \left[ \frac{E_1}{P_0} + g \right] \times 100$$

$E_1$  = EPS expected at the end

$$= E_0 (1+g)$$

$E_0$  = EPS of previous year

(5) Realised Yield Approach

$$\text{Growth Rate} = \left( \text{Product of wealth ratios} \right)^{\frac{1}{n}} - 1$$

$n$  = no. of wealth ratios

$$\text{Wealth Ratio} = \frac{\text{Dividend at the end of year}}{\text{Dividend in the beginning of year}}$$

Example

Current MPS ₹ 125. Data for D/Ds :

<u>Year</u>	<u>D/D (₹)</u>
2011	10.70
2012	11.30
2013	12.50
2014	13.20
2015	14.03

Compute  $g$  and  $K_e$ .

(6) Capital Asset Pricing Model (CAPM)

$$K_e = R_f + \beta (R_m - R_f)$$

$R_f$  - Risk free Rate of Return  
 - Govt. Rate

- Rate of Treasury Bill

- G-Sec. Rate

$\beta$  - Beta coefficient of Equity shares

- Market Sensitivity Index

- Market Related Risk

$R_m$  - Expected Return of Market

$R_m - R_f$  - Market Risk Premium

# Cost of Retained Earnings (K<sub>re</sub>)

In absence of Personal Taxes

$$K_{re} = \frac{D_1}{P_0} + g$$

[ Don't deduct floatation cost ]

In Presence of Personal Taxes

$$K_{re} = K_e (1 - t_p) (1 - B)$$

t<sub>p</sub> = Personal Tax Rate of shareholder

B = Brokerage (%)

# Weighted Average Cost Of Capital

Statement showing computation of WACC

S.No.	Source of Finance	Amt (₹)	Weight	Cost	Weight x Cost
1.	Esc				
2.	Psc				
3.	R+S				
4.	Debt				
					=
					=

Book value vs. Market value weights

CA RAHUL GARG

## Leverages

### (1) Operating Risk

- It is measured by Degree of operating leverage (DOL).
- Higher the DOL, higher is the operating risk.
- Condition to apply DOL is the existence of fixed operating cost.
- If one period data is given
 
$$\frac{\text{Contribution}}{\text{EBIT}}$$
- If two periods data is given
 
$$\frac{\text{Percentage change in EBIT}}{\text{Percentage change in Sales or Contribution}}$$
- DOL measures the effect of change in sales on EBIT.

## **CA INTERMEDIATE/ IPC** **FAST TRACK COSTING LECTURES**

**CA RAHUL GARG**  
**(All India Rankholder in CA CS CMA)**

<b>Duration</b>	✓ 45 Hours (15 Lectures of 3 Hours each)
<b>Question Coverage</b>	✓ 190 (including important questions of SM, PM, RTP, MTP, Past Exams)
<b>Theory Coverage</b>	✓ Important theory in Question Answer Form
<b>Books</b>	✓ 1 Question Book (including theory) ✓ 1 Solution Book
<b>Suitable for</b>	✓ Students who have studied once (from any teacher) and want to revise conceptually ✓ Repeaters (who could not clear the attempt)
<b>Availability</b>	✓ Pen Drive ✓ Virtual Centres ✓ Live (Pune)
<b>Pen Drive Views</b>	✓ 2
<b>Pen Drive Cost</b>	✓ 5000
<b>Important Link</b>	Teaching Methodology – <a href="https://youtu.be/jB0NQaafKIM">https://youtu.be/jB0NQaafKIM</a>  Demo Lecture - <a href="https://youtu.be/AN7vp5LaToc">https://youtu.be/AN7vp5LaToc</a>  Marathon Revision Lecture - <a href="https://youtu.be/HUmd3hPuafc">https://youtu.be/HUmd3hPuafc</a>  Purchase Link - <a href="https://www.swapnilpatni.com/spcstore/publication-view-more?fid=MTg=&amp;pid=Njg=">https://www.swapnilpatni.com/spcstore/publication-view-more?fid=MTg=&amp;pid=Njg=</a>
<b>Buy from swapnilpatni.com. Call at 9130053767, 9011035011</b>	

## (2) Financing Risk

- It is measured by Degree of financial leverage (DFL).
- Higher the DFL, higher is the financing Risk.
- Condition to apply DFL is the existence of fixed financing Cost.
- If one period data is given:

Equity ✓  
Debt ✓  
Pref. X

$$\downarrow$$

$$\frac{EBIT}{EBT}$$

$$\downarrow$$

$$\frac{EBIT}{\frac{EBT - P. D/D}{1-t}}$$

- If two period data is given:

$$DFL = \frac{\text{Percentage change in EPS}}{\text{Percentage change in EBIT}}$$

- So, DFL measures the effect of change in EBIT on EPS.



### (3.) Combined Risk

- It takes into account operating as well as financing risk
- It is measured by Degree of combined leverage (DCL).

$$DCL = DOL \times DFL$$

- If one period data is given

	↓	↓
Equity	✓	✓
Debt	✓	✓
Preference	X	✓
	↓	↓

$$\frac{\text{Contribution}}{\text{EBIT}} \times \frac{\text{EBIT}}{\text{EBT}}$$

$$= \frac{\text{Contribution}}{\text{EBT}}$$

$$\frac{\text{Contribution}}{\text{EBIT}} \times \frac{\text{EBIT}}{\text{EBT} - \frac{P.D/D}{1-t}}$$

$$= \frac{\text{Contribution}}{\text{EBT} - \frac{P.D/D}{1-t}}$$

- If two periods data is given

$$\frac{\text{Percentage change in EBIT}}{\text{Percentage change in Sales}} \times \frac{\text{Percentage change in EPS}}{\text{Percentage change in EBIT}}$$

$$= \frac{\text{Percentage change in EPS}}{\text{Percentage change in Sales}}$$

- So, DCL measures the effect of change in sales on EPS.

## Capital Structure

- Choosing optimum capital structure

	option 1	option 2	option 3
EBIT			
(-) Interest			
= EBT			
(-) tax			
= EAT			
(-) Pref. Div			
= Earnings for Equity shareholders			
÷ no. of Equity shares			
= EPS			
× P/E			
= M.P.S.			

That option shall be chosen ; which provides maximum M.P.S.

## Indifference Point

It is that level of EBIT, at which the firm has 2 such financial plans, which result in same level of EPS.

$$\frac{(\text{EBIT} - I)(1-t) - \text{Pref. Div}}{n} = \frac{(\text{EBIT} - I)(1-t) - P.D.D}{n}$$

Plan 1
Plan 2

$\text{EBIT} = ?$

Choice of Plan



**CA INTER MAY 2018 QUESTION PAPER ANALYSIS**  
(held on 7 May 2018)

Question	Chapter	Theory/ Practical	Marks	Question No. in Rahul Sir' Book	
1	a	Material	Practical	5	Similar to Q 15 of Class Book
	b	Labour	Practical	5	Similar to Q 40 of Class Book
	c	Marginal	Practical	5	Similar to Q 29 of Home Book
	d	Reconciliation	Practical	5	Similar to Q 1 of Class Book
2	a	Cost Sheet	Practical	10	Concept Similar to Q 20 of Class Book
	b	Contract	Practical	10	Similar to Q 25 of Class Book
3	a	Labour	Practical	10	Similar to Q 3 of Class Book
	B	Process	Practical	10	Similar to Q 9 of Home Book
4	a	Activity Based Costing	Practical	10	Similar to Q 30 of Class Book
	b	Service Costing	Practical	10	Extra Question Done in Class
5	a(i)	Material	Practical	5	Similar to Q 31 of Home Book
	a(ii)	Standard	Practical	5	Similar to Q 6 of Class Book
	b	Marginal	Practical	10	Similar concept Qs done in class
7	a	Basic Concepts	Theory	5	Concept Covered in Costing Gatha
	b	Material	Theory	5	Concept Covered in Costing Gatha
	c	Budgetary	Theory	5	Concept Covered in Costing Gatha
	d	Job Costing	Theory	5	Concept Covered in Costing Gatha
	e(i)	Basic Concepts	Theory	2.5	Concept Covered in Costing Gatha
	e(ii)	Material	Theory	2.5	Concept Covered in Costing Gatha

**100 % COVERAGE of QUESTIONS from RAHUL Sir's BOOK**  
All Practical Questions were solved in class.  
All Theory covered in Costing Gatha Book

**CA RAHUL GARG**

B.COM, FCA, LCS, ACMA, DISA (ICAI), CFA (ICFAI), MBA, ADV. DIP. MGT.

**ALL INDIA RANKHOLDER in CA, CS, CMA (incl. AIR 1)**

GOLD MEDALIST

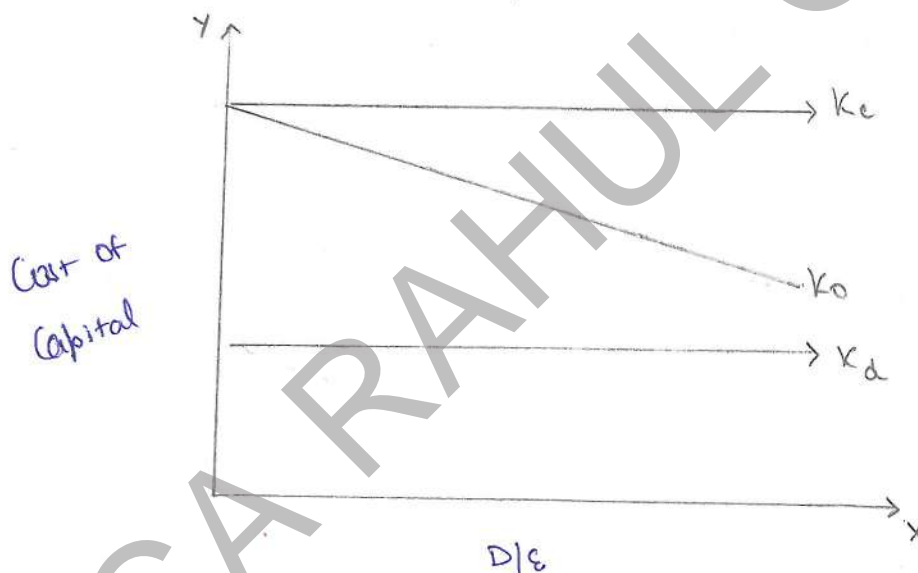
## Theories of Capital Structure

$$V_f = \frac{EBIT}{k_0}$$

$$V_f = V_d + V_e$$

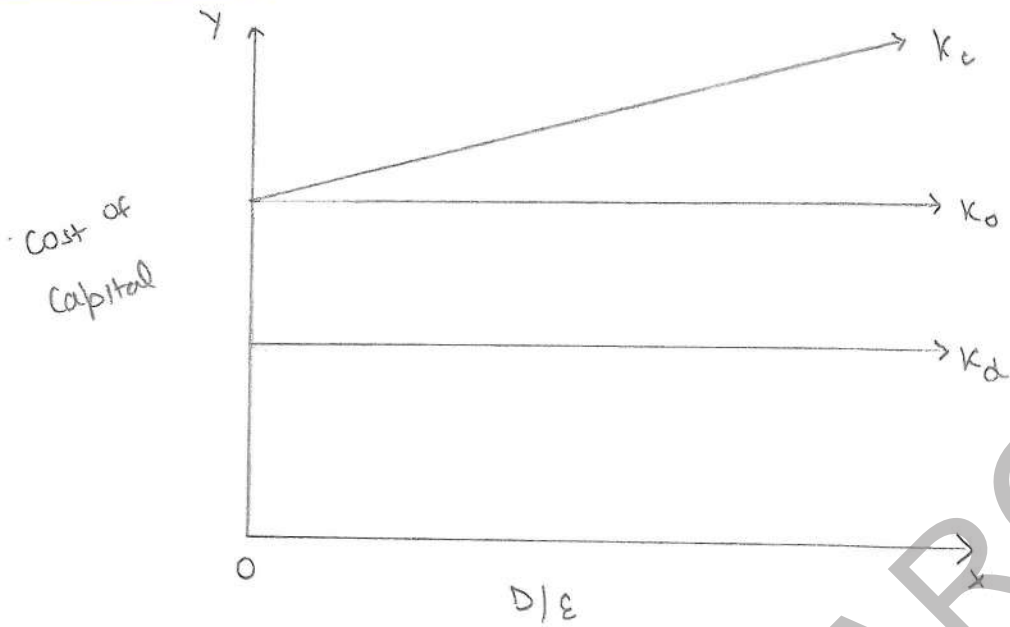
$$= \frac{\text{Interest}}{k_d} + \frac{EBIT - \text{Int}}{k_e}$$

### Net Income Theory



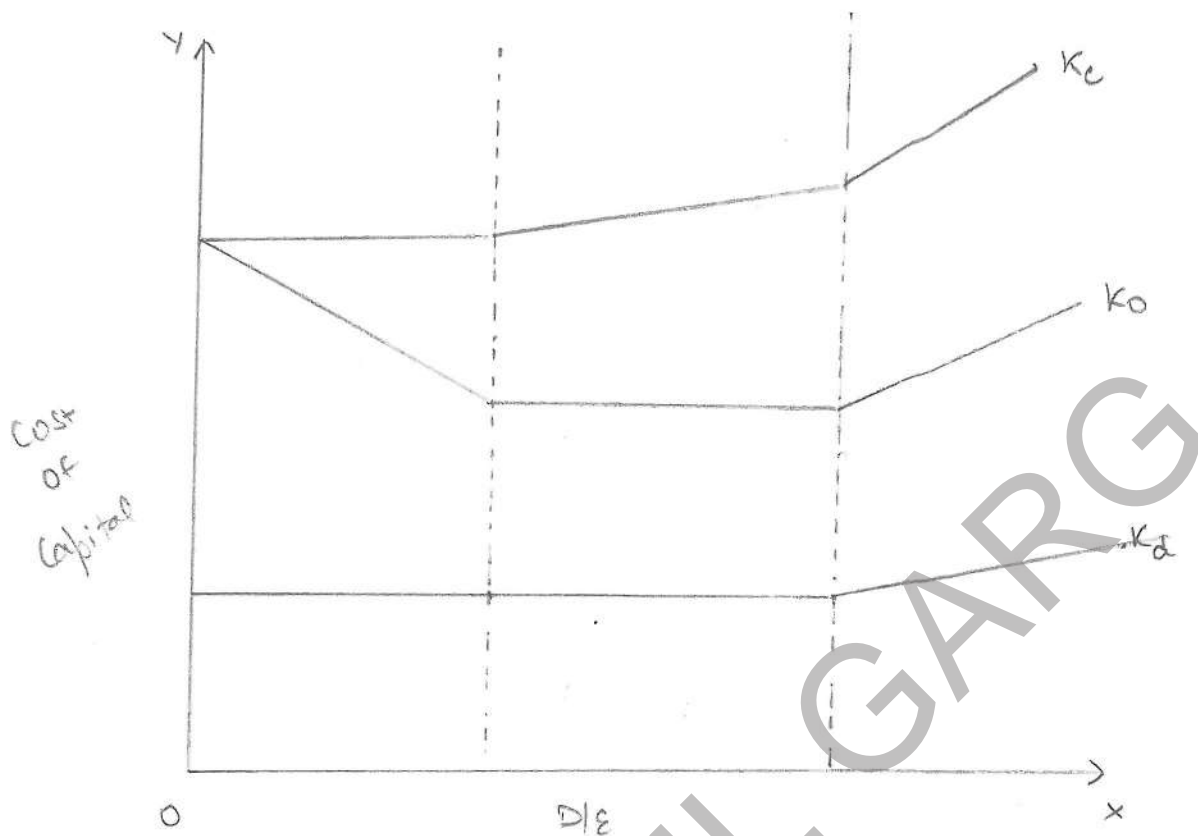
Example: Expected EBIT ₹ 2L. It has ₹ 8L in 10% Deb,  $k_e$  is 12.5%. Compute  $V_f$  +  $k_0$ .

## Net Operating Income Theory



Example: EBIT of X Ltd. ₹ 9L. Current Debt ₹ 30L.  
 $k_d$  10%.  $k_o$  is 12%. Compute  $k_e$ .

## Traditional Approach



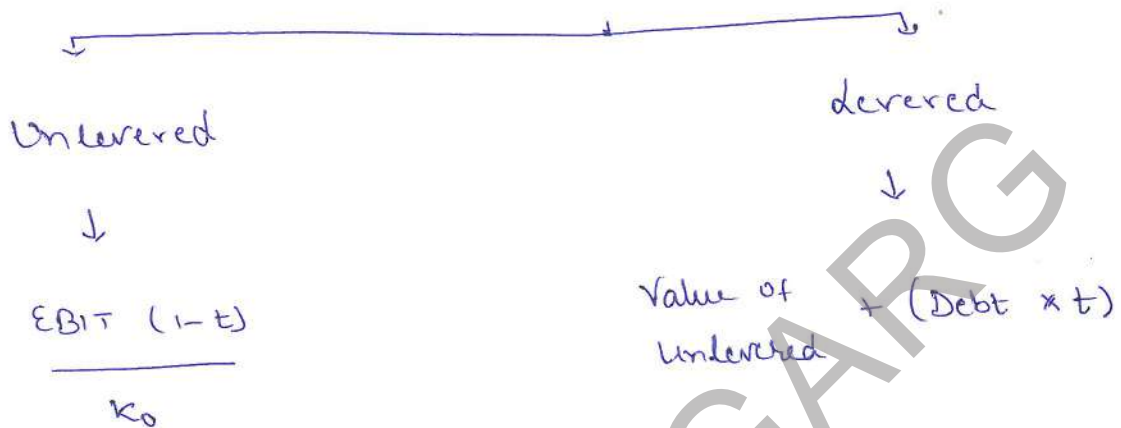
Example : Determine the optimum capital structure.

Debt as a % of total capital employed	Cost of Debt (%)	Cost of Equity (%)
0	5	12
10	5	12
20	5	12.5
30	5.5	13
40	6	14
50	6.5	16
60	7	20

## Modigliani and Miller's Theory

Market Value of firm

(in Presence of Taxations)



### Example

A Ltd. & B Ltd. are identical in every respect except 'Capital Structure'. A Ltd. doesn't employ debt in its capital structure whereas B Ltd. employs 12% Debentures amounting to ₹ 10 Lakhs. Income Tax Rate is 30%, EBIT is ₹ 2,50,000. Equity Capitalisation Rate of A Ltd is 20%. Find value of both the companies.

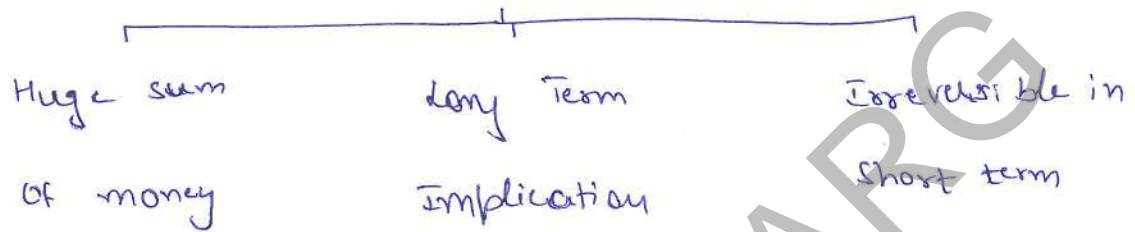


CA RAHUL GARG

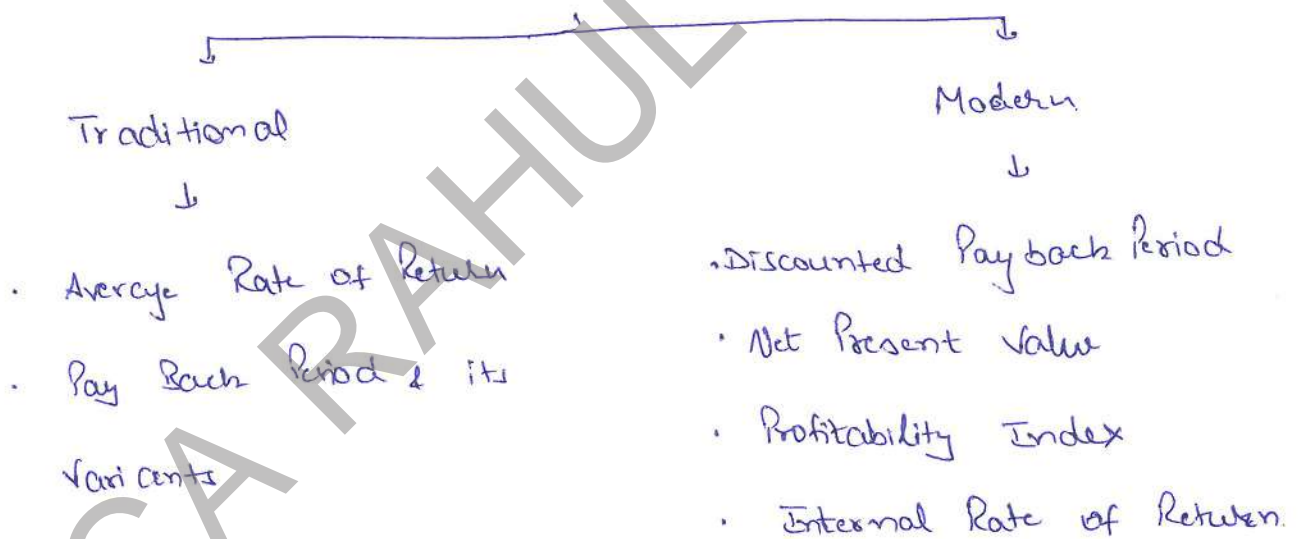
## CHAPTER - 2

### Investment Decisions

Capital Budgeting Decision is Important



#### Techniques



## Average Rate of Return

- It is the rate of return generated by the project during its life.

- $$ARR = \frac{\text{Average Profit after Tax}}{\text{Average Investment}} \times 100$$

- $$\text{Average PAT} = \frac{\text{Total PAT of all Years}}{\text{No. of Years}}$$

- $$\text{Average Investment} = \frac{\text{Cost of Project} + \text{Salvage value}}{2}$$

CA RAHUL GARG

## Computation of Cash flows

Method 1

$$\begin{aligned}
 & \text{EBDIT} \\
 & - \text{Dep} \\
 & = \text{EBIT} \\
 & - \text{Int} \\
 & = \text{EBT} \\
 & - \text{tax} \\
 & = \text{EAT} \\
 & + \text{Depreciation} \\
 & = \text{Cash Inflow}
 \end{aligned}$$

Method 2

$$\begin{aligned}
 & \text{EBDIT} \\
 & - \text{Int} \\
 & = \text{EBIT} \\
 & - \text{tax} \\
 & = \text{EAT} \\
 & + \text{Tax saving} \\
 & \quad \text{due to} \\
 & \quad \text{depreciation}
 \end{aligned}$$

CA RAHUL GARG

## Pay Back Period

- It is the period within which cost of the project will be recovered

### Formula

If cash flows are equal p.a.

Cost of Project

Annual Cash Inflow

If cash flows are not equal p.a.

Detailed schedule shall be prepared wherein all the cash flows will be accumulated to interpolate the pay back period.

Difference between Traditional & Modern Techniques

Discounted Payback Period

Statement showing cumulative PVCF

<u>Year end</u>	<u>Cum I/F</u>	<u>PVF @ _ %</u>	<u>PVCF</u>	<u>Cum PVCF</u>
-----------------	--------------------	------------------	-------------	-----------------

# CA IPC MAY 2018 QUESTION PAPER ANALYSIS

(held on **7 MAY 2018**)

**100 % COVERAGE of QUESTIONS from RAHUL Sir's BOOK**

**All Practical Questions were solved in class.**

**All Theory covered in Costing & FM Gatha Book**

## Analysis of CA IPC MAY 2018 COST FM PAPER by CA RAHUL GARG

Question	Subject	Chapter	Theory/ Practical	Marks	Question No. in Rahul Sir' Book	
1	a	Cost	Material Costing	Practical	5	Similar to Q 18 of Class Puzzle
	b	Cost	Standard Costing	Practical	5	Similar to Q 18 of Class Puzzle
	c	FM	Cash Flow Statement	Practical	5	Similar to Q 20 of Class Puzzle
	d	FM	Cost of Capital	Practical	5	Similar to Q 39 of Class Puzzle
2	a	Cost	Marginal Costing	Practical	8	Same as Q 18 of Home Puzzle
	b	FM	Ratio Analysis	Practical	8	Similar Concept as in Q 11 of Class Puzzle
3	a	Cost	Marginal Costing	Practical	8	Similar Concept as in Q 22 of Class Puzzle
	b	FM	Debtor Mgt	Practical	8	Similar to Q 17 of Class Puzzle
4	a	Cost	Process Costing	Practical	8	Similar to Q 18 of Class Puzzle
	b	FM	Leverage	Practical	8	Similar to Q 10 of Class Puzzle
5	a	Cost	Labour Costing	Theory	4	Concept Covered in Costing Gatha
	b	Cost	Cost Accounting System	Theory	4	Concept Covered in Costing Gatha
	c	FM	Working Capital Finance	Theory	4	Concept Covered in FM Gatha
	d	FM	Leverage	Theory	4	Concept Covered in FM Gatha
6	a	Cost	Overheads	Practical	8	Similar to Q 8 of Home Puzzle
	b	FM	Capital Budgeting	Practical	8	Similar to Q 41 of Class Puzzle
7	a	Cost	Basic Concepts	Theory	4	Concept Covered in Costing Gatha
	b	Cost	Budgetary	Theory	4	Concept Covered in Costing Gatha
	c	FM	Sources of Finance	Theory	4	Concept Covered in FM Gatha
	di	Cost	Standard Costing	Theory	2	Concept Covered in Costing Gatha
	d	FM	Sources of Finance	Theory	2	Concept Covered in FM Gatha
	e	FM	Time Value of Money	Theory	4	Concept Covered in FM Gatha

Example

Cost of Project ₹ 1,00,000

Annual Cash Inf ₹ 60000, 50000 &amp; 40000

Life 3 Years

Discounting Rate 10%.

Solution

Year end	Cash Inf	PvF @ 10%	PVCF	Cum. PVCF
1	60000	.909	54540	54540
2	50000	.826	41300	95840
3	40000	.751	30040	125880

CA RAHUL



## Net Present value

- It denotes the net value of cash flows from the project, either positive or negative.
- $NPV = \sum Pvc_i - \sum Pvc_o$
- Statement showing computation of NPV

Year end	Particulars		Prf @_ %	PrCF
	<del>Cash</del> flow	Cash flow		

Acceptance Criteria

Example

Cost of Project = ₹ 1,00,000 , Life 5 years,

Cash Inflows P.a. = ₹ 50,000, 40,000, 30,000, 20,000, 10,000

Discounting Rate 10%.

Solution

Year end	Particulars	Cash flow (₹)	PvF @ 10%	PVCF
0	Cost of Project	-100000	1	-100000
1	Annual Cash If	50000	0.909	45450
2		40000	0.826	33040
3		30000	0.751	22530
4		20000	0.683	13660
5		10000	0.621	6210
				<u>20890</u>

Example

Cost of Project = ₹ 1,00,000 , Life 6 years

Cash Inflows P.a. = ₹ 25,000.

Discounting Rate 12%.

Solution

Year end	Particulars	Cash flow (₹)	PvF or AF @ 10%	PVCF
0	Cost of Project	-100000	1	-100000
1-6	Cash If	25000	4.111	102775
				<u>2275</u>

## Profitability Index | Desirability Factor

$$PI = \frac{\sum PVCI}{\sum PVCO}$$

Acceptance Criteria.

## Net Profitability Index

$$NPPI = \frac{NPV}{\sum PVCO}$$

$$= \frac{\sum PVCI - \sum PVCO}{\sum PVCO}$$

$$= \frac{\sum PVCI}{\sum PVCO} - \frac{\sum PVCO}{\sum PVCO}$$

$$= PI - 1$$

## Internal Rate of Return

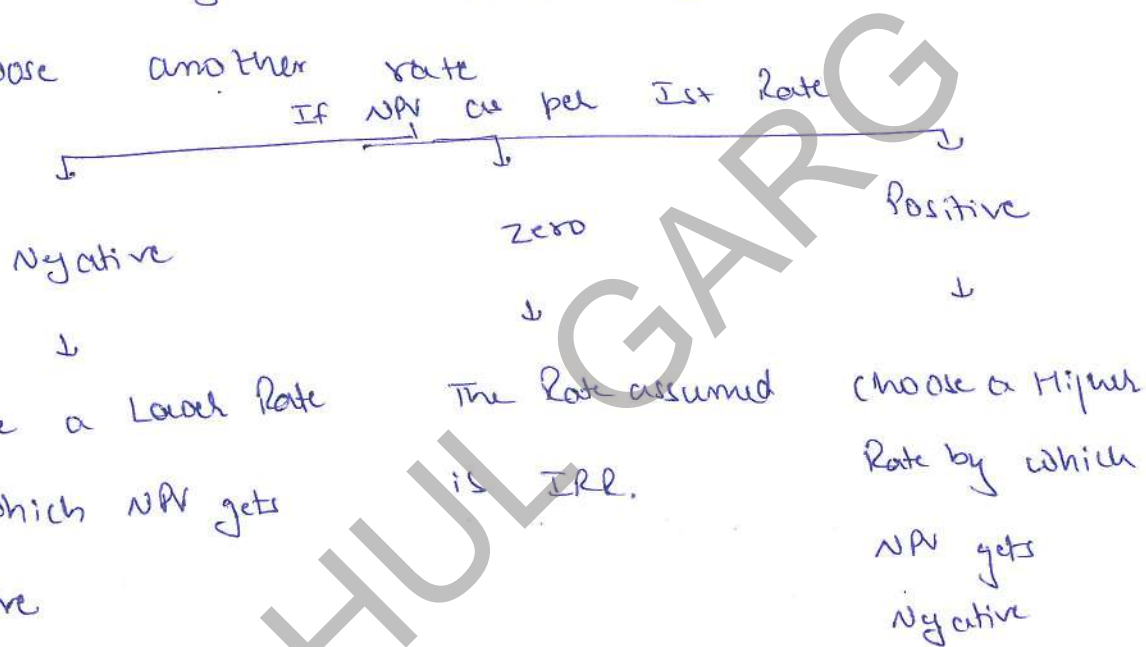
- It is the rate at which  $\sum PVCI = \sum PVCO$

i.e.  $NPV = 0$

- steps to find IRR

- assume any rate and find NPV

- choose another rate



- Find one Positive & one Negative NPV ; at 2 different rates ; the gap of which should

not exceed 4-5%.

$$IRR = \text{Lower Rate} + \frac{\text{Positive NPV}}{\text{Positive NPV} - \text{Negative NPV}} \times \text{Difference in Rates}$$

## Projects Having unequal lives

- Equalised NPV =  $\frac{NPV}{AF(r\%, n)}$
- choice of project shall be made on the basis of Equalised NPV.

## Working Capital

It represents the amount required to be invested in project in the form of net current assets.

CA RAHUL GARG

## Scrap value

- It represents the amount which can be fetched from the project or the asset, after its life is over.

	Case a	Case b	Case c
Boob value	50000	50000	50000
Scrap value			
CA/ (CL)			
Tax Impact			
Net Cash I/f			

Formula :

## **CA INTERMEDIATE/ IPC** **REGULAR COSTING LECTURES**

**CA RAHUL GARG (All India Rankholder in CA CS CMA)**

<b>Duration</b>	✓ 181 Hours
<b>Question Coverage</b>	✓ 800+ (including all Questions of SM, PM, RTP, MTP, Past Exams)
<b>Theory Coverage</b>	✓ 100% theory (Costing Gatha)
<b>Books</b>	✓ 2 Question Books (B & W) ✓ 2 Theory Books (Coloured)
<b>Suitable for</b>	✓ Students studying first time ✓ Students who have studied from any other teacher but did not practice much questions
<b>Availability</b>	✓ Pen Drive ✓ Virtual Centres ✓ Live (Pune)
<b>Pen Drive Views</b>	✓ 2
<b>Pen Drive Cost</b>	✓ 9000
<b>Important Link</b>	Teaching Methodology – <a href="https://youtu.be/TVFFVu9qmkw">https://youtu.be/TVFFVu9qmkw</a>  Demo Lecture - <a href="https://youtu.be/4AzorTZ4zoQ">https://youtu.be/4AzorTZ4zoQ</a> <a href="https://youtu.be/a4jCkmdkPCs">https://youtu.be/a4jCkmdkPCs</a>  Marathon Revision Lecture - <a href="https://youtu.be/HUmd3hPuafc">https://youtu.be/HUmd3hPuafc</a>  Purchase Link - <a href="https://www.swapnilpatni.com/spcstore/publication-view-more?fid=&amp;pid=NzE=">https://www.swapnilpatni.com/spcstore/publication-view-more?fid=&amp;pid=NzE=</a>

**Buy from [swapnilpatni.com](http://swapnilpatni.com). Call at 9130053767, 9011035011**

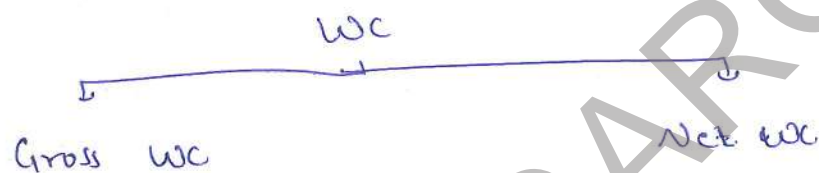
## Chapter - 3

### Working Capital Management

#### Working Capital

It refers to the funds required for day to day business operations

#### Types



#### Estimation of WC

To have the better management of Working Capital, its estimation in advance is essential and important.

Estimation of Current Assets

- Estimation of Current Liabilities

= Estimated Working Capital

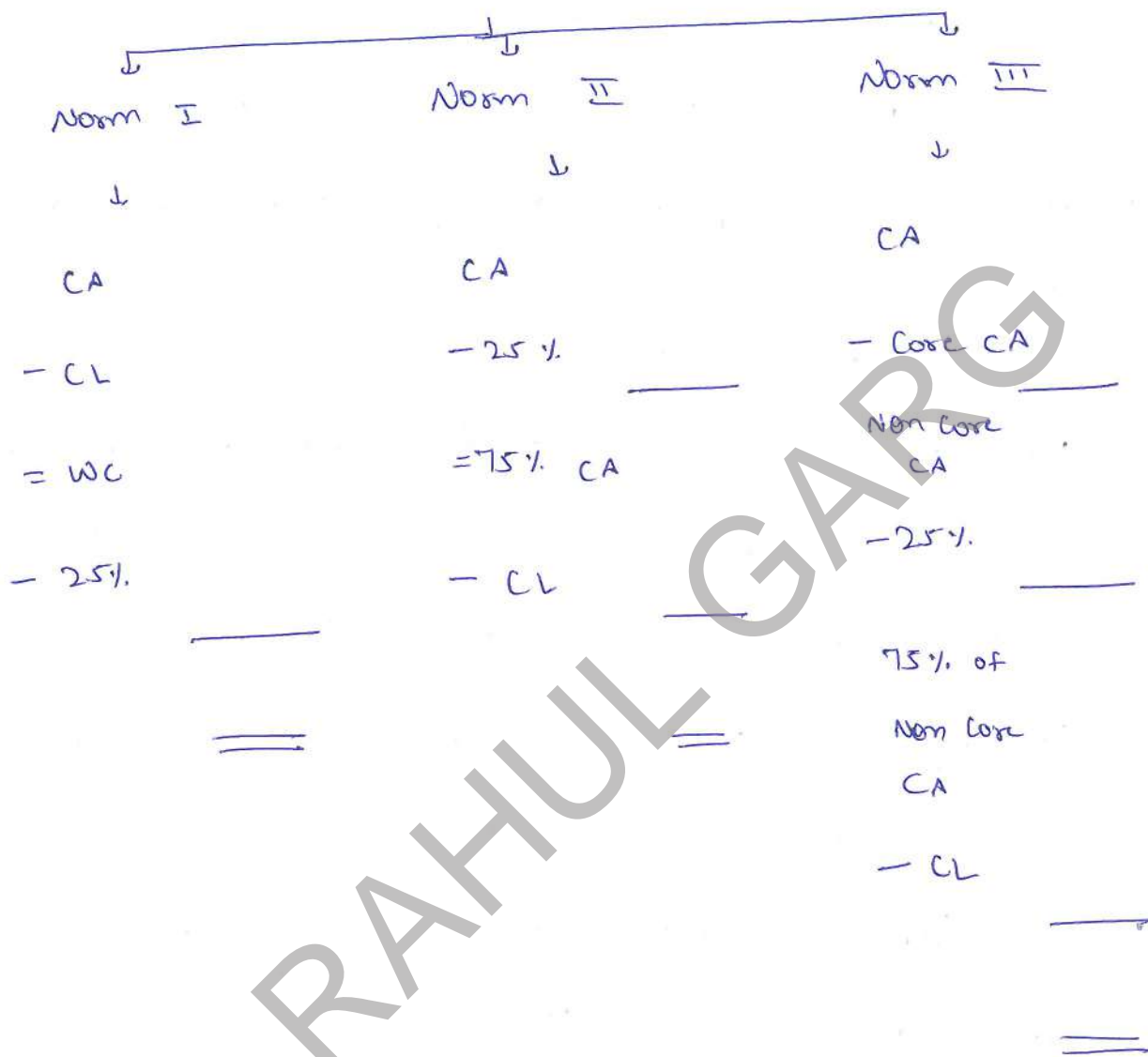


## Statement showing Estimation of Working Capital

S.No.	Particulars	Computation	Amt (₹)
(A)	<u>Current Assets</u>		
1.	Raw Material Inventory	Raw Material Consumed $\times$ $\frac{\text{Raw Material Holding Period}}{360 \text{ D} / 52 \text{ W} / 12 \text{ M}}$	
2.	WIP Inventory		
a.	Material	Raw Mat. consumed $\times$ $\frac{\text{Conversion Period}}{360 \text{ D} / 52 \text{ W} / 12 \text{ M}} \times \text{Doc}$	
b.	labour	Direct wages $\times$ $\frac{\text{Conversion Period}}{360 \text{ D} / 52 \text{ W} / 12 \text{ M}} \times \text{Doc}$	
c.	overheads	Factory Ohrs $\times$ $\frac{\text{conversion Period}}{360 \text{ D} / 52 \text{ W} / 12 \text{ M}} \times \text{Doc}$	
3.	Finished Goods Inventory	Cost of Production $\times$ $\frac{\text{Stock Holding Period}}{360 \text{ D} / 52 \text{ W} / 12 \text{ M}}$	
4.	Debtors	Credit sales $\times$ $\frac{\text{Average Collection Period}}{360 \text{ D} / 52 \text{ W} / 12 \text{ M}}$	
5.	Prepaid Expenses	Total Exp. for Period $\times$ $\frac{\text{Time of Prepayment}}{360 \text{ D} / 52 \text{ W} / 12 \text{ M}}$	
6.	Cash		
	<u>Total</u>		
(B)	<u>Current Liabilities</u>		
1.	RM creditors	Credit Purchase $\times$ $\frac{\text{Avg. Payment Period}}{360 \text{ D} / 52 \text{ W} / 12 \text{ M}}$	
2.	O/S Expenses	Exp for the period $\times$ $\frac{\text{Time Lag}}{360 \text{ D} / 52 \text{ W} / 12 \text{ M}}$	
	<u>Total</u>		
(C)	Working Capital	(A) - (B)	
(D)	Safety Margin		
(E)	Total work. Cap	(C) + (D)	

- Raw material consumed means  
 opening stock of raw material  
 + Purchases of raw material  
 - closing stock of raw material
- But while computing creditors also; we take raw mat. consumed because opening stock & closing stock are assumed to be same (as the concern is going on from one to other period)
- If as is silent; assume DOC for WIP as 100%, 50% & 50% for material, lab & o/n.
- Depreciation (if given) is not to be considered for any computation (as it is non cash)
- If question asks to compute WC on CASH COST BASIS; Profit is not to be taken into account i.e. Dr's are to be computed at cost of credit sales rather than credit sales

Maximum Permissible Bank Finance As Per  
London Committee



CA RAHUL GARG

## Effect of Double Shift on WC

- Total units to be produced get doubled as there is extra shift working.
- No. of units of WIP don't change at all i.e. for computation of WIP, same no. of units shall be taken as of single shift working.
- All the variable expenses like Direct Material, wages get also doubled (due to output being doubled) in totality.
- However, the amount of fixed overheads don't change in totality but these become half on per unit basis. i.e. overall cost on per unit basis comes down.

## Computation of Operating Cycle

$$\begin{aligned}
 & \text{Raw Material Holding Period} \\
 & + \text{WIP Conversion Period} \\
 & + \text{FG Holding Period} \\
 & + \text{Average Collection Period} \\
 & - \text{Average Payment Period}
 \end{aligned}$$

$$\begin{aligned}
 \text{No. of operating cycles} \\
 \text{in a year} &= \frac{360 \text{ Days}}{\text{Operating Cycle Period}}
 \end{aligned}$$

$$\begin{aligned}
 \text{Amt. of Working} \\
 \text{Capital Required} &= \frac{\text{Annual Operating Cost}}{\text{No. of operating cycles}}
 \end{aligned}$$

## Debtor's Management

Statement showing Incremental Gain or loss

Particulars	Current Policy	Option 1	Option 2
• Sales			
• Contribution			
• Incremental Contribution			
• Bad Debts			
• Incremental Bad Debts			
• Admin. Cost			
• Incremental Admin. Cost			
• Collection Exp			
• Incremental Collection Exp			
• Opportunity Cost			
• Incremental Opportunity Cost			
= Net Incremental Gain/ (loss)			

## Opportunity Cost

$$\text{Sales} \times \frac{\text{credit Sales}}{\text{Sales}} \times \text{Cost \%} \times \text{ACP} \times \text{Return \%}$$

credit sales

Cost of credit sales

Cost of Debtors

Opportunity Cost of funds blocked in Debtors

## Impact of Fixed Cost

## Computing Return Before Tax

Cash Management(1) Optimum Cash Balance

William J. Baumol Model

$$\sqrt{\frac{2 \times A \times T}{C}}$$

A = Annual Requirement of Cash

T = Transaction Cost

C = Carrying Cost

$$(2) \text{ Average Cash Balance} = \frac{\text{Optimum Cash Balance}}{2}$$



# CA IPC NOVEMBER 2017 QUESTION PAPER ANALYSIS

(held on 7 NOVEMBER 2017)

**100 % COVERAGE of QUESTIONS from RAHUL Sir's BOOK**  
**All Practical Questions were solved in class.**  
**All Theory covered in Costing Gatha Book**

Analysis of CA IPC NOVEMBER 2017 COST FM PAPER by CA RAHUL GARG						
Question	Subject	Chapter	Theory/ Practical	Marks	Question No. in Rahul Sir' Book	
1	a	Cost	Labour Costing	Practical	5	Similar to Q 46 of Class Book
	b	Cost	Contract Costing	Practical	5	Similar to Q 14 of Class Book
	c	FM	Time Value of Money	Practical	5	Similar to Q 5 of Class Book
	d	FM	Capital Structure	Practical	5	Similar to Q 14 of Class Book
2	a	Cost	JP BP	Practical	8	Similar to Q 16 of Class Book
	b	FM	Capital Budgeting	Practical	8	Similar to Q 22 of Class Book
3	a	Cost	Standard Costing	Practical	8	Similar to Q 4 of HW Book
	b	FM	Debtor Management	Practical	8	Similar to Q 7 of HW Book
4	a	Cost	Marginal Costing	Practical	8	Similar to Q 40 of Class Book
	b	FM	Leverage	Practical	8	Similar to Q 14 of Class Book
5	a	Cost	Basic concepts	Theory	4	Same as Q 13 of Costing Gatha
	b	Cost	Cost Accounting System	Theory	4	Concept Covered in Costing Gatha
	c	FM	Debtor Management	Theory	4	Same as Q 4 of FM Gatha
	d	FM	Capital Budgeting	Theory	4	Concept Covered in FM Gatha
6	a	Cost	Overheads	Practical	8	Similar to Q 21 of Class Book
	b	FM	Ratio Analysis	Practical	8	Similar to Q 15 of Class Book
7	a	Cost	Material Costing	Theory	4	Concept Covered in Costing Gatha
	b	Cost	Contract Costing	Theory	4	Same as Q 3 of Costing Gatha
	ci	Cost	Budgetary Control	Theory	2	Same as Q 2 of Costing Gatha
	cii	FM	Sources of Finance	Theory	2	Same as Q 5 of FM Gatha
	d	FM	Cash Management	Theory	4	Same as Q 5 of FM Gatha
	e	FM	Basic concepts	Theory	4	Concept Covered in FM Gatha

Cash Budget

S.No	Particulars	1	2	3	4
A.	Opening Balance				
B.	Receipts				
	• Cash sales				
	• Receipt from D/S				
	• Sale of Asset				
	• Tax Refund				
	Total (B)				
C.	Payments				
	• Cash Purchases				
	• Payment to Cr's				
	• <del>Material</del> Payment for wages				
	• Payment for Opex				
	• Payment for Tax				
	• Purchase of Asset				
	Total (C)				
D.	Balance				
	- Investment				
	+ Sale of Investment				
	+ Borrowings				
	= closing Balance				

Ratio Analysis

Profitability Ratios

• GP Ratio =  $\frac{GP}{Net\ Sales} \times 100$

• NP Ratio =  $\frac{NP}{Net\ Sales} \times 100$

• Return on Investment =  $\frac{EBIT}{Capital\ Employed} \times 100$

• Return on Equity =  $\frac{Earnings\ available\ for\ Equityholders}{Equity\ shareholder\ Funds} \times 100$

• Return on Net Worth =  $\frac{Earnings\ after\ Tax}{Shareholder\ Funds} \times 100$

• Return on Total Assets =  $\frac{Earning\ After\ Tax}{Total\ Assets} \times 100$

## Activity Ratios

- Asset Turnover Ratio =  $\frac{\text{Net Sales}}{\text{Avg. Total Assets}} [x100]$

↑  
if as says  
in %.

- Working Capital Turnover Ratio =  $\frac{\text{Net Sales}}{\text{Average Working Capital}}$

- Debtor Turnover Ratio =  $\frac{\text{Net Credit Sales}}{\text{Average Receivables}}$

$$\text{Dr's Collection Period} = \frac{360 \text{ D} / 52 \text{ W} / 12 \text{ M}}{\text{Dr's T/O Ratio}}$$

- Creditors Turnover Ratio =  $\frac{\text{Net Credit Purchases}}{\text{Average Payables}}$

$$\text{Cr's Payment Period} = \frac{360 \text{ D} / 52 \text{ W} / 12 \text{ M}}{\text{Cr's T/O Ratio}}$$

- Stock Turnover Ratio =  $\frac{\text{COGS}}{\text{Average Stock}}$

$$\text{Stock Holding Period} = \frac{360 \text{ D} / 52 \text{ W} / 12 \text{ M}}{\text{Stock T/O Ratio}}$$

## Coverage Ratios

$$\bullet \text{ Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Int. on Debt}}$$

$$\bullet \text{ Cover for Preference Dividend} = \frac{\text{Earnings After Tax}}{\text{Preference Dividend}}$$

$$\bullet \text{ Cover for Equity Dividend} = \frac{\text{Earnings Available for Equity shareholders}}{\text{Equity Dividend}}$$

$$\bullet \text{ Debt Service Coverage Ratio} = \frac{\text{Earnings Available for Debt Service}}{\text{Interest on Debt} + \text{Installment of loan Due within 1 Year}}$$

$$\frac{\text{Earnings Available for Debt Service}}{\text{Profit After Tax} + \text{Interest on loan} + \text{Depreciation and other non cash expenses}}$$



## Market Test Ratios

- Earning Per share =  $\frac{\text{Earnings Available for Equityholders}}{\text{No. of Equity shares}}$   
(EPS)
- Dividend Per share (DPS) =  $\frac{\text{Total Dividend for Equityshareholders}}{\text{No. of Equity shares}}$
- Dividend Payout Ratio =  $\frac{\text{DPS}}{\text{EPS}} \times 100$
- Dividend Yield Ratio =  $\frac{\text{DPS}}{\text{MPS}} \times 100$
- Earnings Yield Ratio =  $\frac{\text{EPS}}{\text{MPS}} \times 100$
- ~~Dividend Yield Rat~~  
Price Earning Ratio =  $\frac{\text{MPS}}{\text{EPS}}$

## Solvency / Financial Ratios

### → Short Term Solvency Ratios

• Current Ratio / Working Capital Ratio =  $\frac{\text{Current Assets}}{\text{Current Liabilities}}$

• Quick Ratio / Liquid Ratio =  $\frac{\text{Liquid Assets}}{\text{Liquid Liabilities}}$

↓

Current Assets      Current Liabilities

- Stock
- P/P Expenses
- Bank O/D

### → Long Term Solvency Ratios

• Debt Equity Ratio =  $\frac{\text{Debt}}{\text{Equity}}$

Debt - long term Debt

Equity - Shareholder funds

## **CA INTERMEDIATE/ IPC** **REGULAR GST LECTURES**

**CA RAHUL GARG (All India Rankholder in CA CS CMA)**

<b>Duration</b>	✓ 67 Hours
<b>Question Coverage</b>	✓ 330+
<b>Books</b>	✓ 4 Coloured Modules ✓ Conceptual Clarity Guaranteed ✓ Provisions supported by Bare Act
<b>Suitable for</b>	✓ Students studying first time ✓ Students who have studied from any other teacher but did not practice much questions ✓ Repeaters
<b>Availability</b>	✓ Pen Drive ✓ Virtual Centres ✓ Live (Pune)
<b>Pen Drive Views</b>	✓ 2
<b>Pen Drive Cost</b>	✓ 5000
<b>Important Link</b>	<b>Demo Lecture</b> - <a href="https://youtu.be/dsUMYCu_hgo">https://youtu.be/dsUMYCu_hgo</a> <a href="https://youtu.be/LyZIW4ZuMl">https://youtu.be/LyZIW4ZuMl</a> <a href="https://youtu.be/v5plC7MLOcg">https://youtu.be/v5plC7MLOcg</a> <a href="https://youtu.be/gjw0EzP_I8E">https://youtu.be/gjw0EzP_I8E</a> <a href="https://youtu.be/SAZ-CaEbmtE">https://youtu.be/SAZ-CaEbmtE</a>  <b>Purchase Link</b> - <a href="https://www.swapnilpatni.com/spcstore/publication-view-more?fid=MTg=&amp;pid=NzU=">https://www.swapnilpatni.com/spcstore/publication-view-more?fid=MTg=&amp;pid=NzU=</a>
<b>Buy from swapnilpatni.com. Call at 9130053767, 9011035011</b>	



• Capital Gearing Ratio

$$= \frac{\text{Long Term Funds Bearing Fixed Rate of Return}}{\text{Long Term Funds Bearing Variable Rate of Return}}$$

↓

Debt

↓

Equity shareholder funds

+ Preference share capital

• Proprietary Ratio =  $\frac{\text{Shareholder Funds}}{\text{Total Assets}}$

• Fixed Assets Ratio =  $\frac{\text{Net fixed Assets}}{\text{Capital employed}}$

## Chapter - 5

### Fund Flow Statement

- It's a statement of change in assets and liabilities of an enterprise.
- It is prepared to indicate how financial position has changed over a period.

#### Step By Step Approach

- Schedule of change in Working Capital
- Adjusted P/L A/c
- Funds Flow Statement

#### Schedule of change in WC

S.No.	Particulars	Opening	Closing	↑ in WC	↓ in WC
(A)	<u>Current Assets</u>				
1.	Debtors				
2.	Cash etc.				
	Total				
(B)	<u>Current Liabilities</u>				
1.	Creditors				
2.	B/P etc.				
	Total				
(C)	Working cap. (A-B)				
(D)	↑ / ↓ in WC				

## Adjusted P/L A/c

Particulars	Amt. (₹)	Particulars	Amt. (₹)
To Non Cash Exp.		By Balance B/d	
To Non operating Expenses		By Non Cash Income	
		By Non operating Income	
To Balance c/d		By Funds from operations	
			Bal. fig.

## Funds Flow Statement

Sources	Amt. (₹)	Applications	Amt. (₹)
Decrease in WC		Increase in WC	
Funds from operations		Funds lost in operations	
Sale of Assets		Purchase of Asset	
Issue of share Capital		Redemption of share Cap.	
Tax Refund		Tax Paid	
		D/Ds Paid	

## Transactions Affecting FFS

- we are concerned with only those transactions from where the FLOW OF WC ARISES



- Any transaction which  $\uparrow$  the amt. of WC is a SOURCE.

- WC  $\uparrow$  if the transaction
  - increases CA
  - decreases CL

- Any transaction which  $\downarrow$  the amt. of WC is an APPLICATION.

- WC  $\downarrow$  if the transaction
  - decreases CA
  - increases CL

CA RAHUL GARG

CA RAHUL GARG

## Chapter - 6

### Cash Flow Statement

- It means the statement of change in Cash and Cash Equivalents.
- It is regulated as per AS:3 of ICAI.

#### Meaning of Cash.

It comprises cash in hand & Demand Deposits with the banks.

#### Meaning of Cash Equivalents

These are short term highly liquid investments which are readily convertible into known amounts of cash & which are subject to insignificant risk of change in value.

Any investment will qualify as cash equivalent only if it has short maturity of 3 months or less from date of acquisition, these are

- As per AS 3; these are
  - Cash in hand
  - Cash at Bank
  - Marketable Securities
  - Bank Overdraft
  - Cash Credit

## Cash flows

- These are inflows & outflows of cash and cash equivalents
- Cash flow arises when net effect of transaction is to either  $\uparrow$  or  $\downarrow$  the amount of cash & cash equivalents.
- It arises from the transactions.

CA RAHUL GARG

## Division Into Activities

- Operating Activity

These are the principle revenue producing activities of enterprise and other activities which are not investing or financing.

<u>Activity</u>	<u>Non Financing Enterprise</u>	<u>Financing Enterprise</u>
Int. Received		
D/D Received		
Int. Paid		
D/D Paid		

- Investing Activity

These are Acquisition & Disposal of Long Term Assets & other Investments

- Financing Activity

These are activities which result in change in size & composition of owner's capital & borrowings of enterprise.



Cash Flow Statement for year ending .... (Indirect Method)

Particulars	Amount (₹)
(A) <u>Cash Flow from Operating Activity</u>	
Surplus During The Year	
+ Non Cash & Non Operating Expenses	
- Non Cash & Non Operating Income	
= Cash from operations (Before we changes)	
- Increase in Current Asset	
+ Decrease in Current Asset	
+ Increase in Current Liability	
- Decrease in Current Liability	
= Cash from Operations (Before Tax)	
- Tax Paid	
+/- Extraordinary Items	
(B) <u>Cash Flow from Investing Activity</u>	
+ Sale of Asset/ Investment	
- Purchase _____	
(C) <u>Cash Flow from Financing Activity</u>	
+ Issue of share Capital/ Debenture	
- Interest/ Dividend Paid	
Net Cash & Cash Equivalents Generated During Year (A+B+C)	
+ opening Balance of cash & Cash Equivalents	
= closing Balance of cash & Cash Equivalents	

## Cash flow statement (Direct Method)

### Cash Flow from Operating Activity

- Cash sales
- + Cash Received from Debtors
- Cash Purchases
- Cash Paid to Creditors
- Payment for operating expenses
- = Cash Generated from operations
- Income Tax Paid
- +/- Extra ordinary Items

—  
=

## TIME VALUE OF MONEY

$$\begin{aligned} \text{Future Value} &= \text{Present value} + \text{Time value} \\ \text{of Money} &= \text{of Money} + \text{of Money} \\ & \qquad \qquad \qquad \underbrace{\hspace{10em}} \\ & \qquad \qquad \qquad \text{Interest} \end{aligned}$$

$$\text{Simple Interest} = P \times r \times t$$

P : Principal Amt.

r : rate of interest

t : time period

$$\text{Compound Interest} = P (1+r)^t$$

• Effective Rate of Interest =  $\left(1 + \frac{r}{m}\right)^m - 1$

$r$  : rate of interest p.a.

$m$  : no. of compoundings in a year

• Future Value of Annuity /

$$= A \frac{(1+r)^n - 1}{r}$$

Sinking Fund

⊙  $A [FVIFA (r\%, n)]$

$A$  : Periodic Amount

• Present value of Annuity =  $\frac{A}{r} \left[1 - \frac{1}{(1+r)^n}\right]$

⊙  $A [PVIFA (r\%, n)]$

• Perpetuity (Constant CFS) =  $\frac{A}{r}$

• Perpetuity (Growing CFS) =  $\frac{A}{r-g}$

## Risk Analysis in Capital Budgeting

### → Statistical Techniques

$$\begin{aligned}
 NPV &= \sum PVCI - \sum PVCO \\
 &\quad \downarrow \\
 &CF \times PV(r\%, n) \\
 &\quad \downarrow \\
 &\sum (CF \times Prob)
 \end{aligned}$$

$$\text{Variance} = \sum [(CF - \bar{CF})^2 \times P]$$

$$\sigma = \sqrt{\text{Variance}}$$

### → Risk Adjusted Discount Rate

$$RADR = R_f + \text{Risk Premium}$$

### → Certainty Equivalent Approach

$$\text{Certainty Equivalent Coefficient} = \frac{\text{Certain CF}}{\text{Risky CF}}$$

Higher the CE; lower is the Risk.

→ Sensitivity Analysis

- To find the impact of change in variable on the outcome of project i.e. NPV.

→ Scenario Analysis

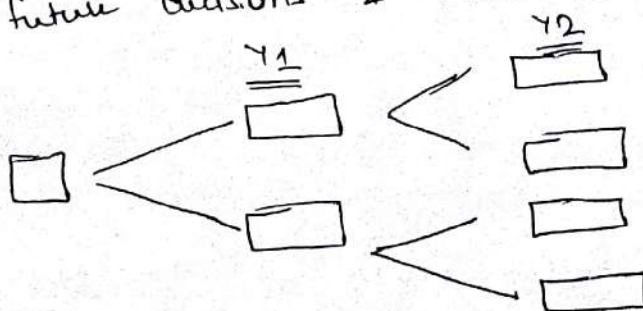
- To find the impact of change in more than one variable simultaneously on the outcome of project.

→ Simulation

- Determining range of random nos.
  - for each variable ; finding cumulative prob. on the base of prob. given + specifying range of random nos
  - fitting the random nos given in the ds
  - finally, finding NPV. for each run

→ Decision Tree

- It's a graphical presentation of relationship b/w future decisions + their consequences.



• Computation of NPV

<u>Path</u>	<u>Pv CF (Y1)</u>	<u>Pv CF (Y2)</u>	<u>Total PvCI</u>	<u>PvCO</u>	<u>NPV</u>
1					
2					
3					
4					

• Computation of Exp. NPV

<u>Path</u>	<u>NPV</u>	<u>JP</u>	<u>Exp. NPV</u>
1			
2			
3			
4			

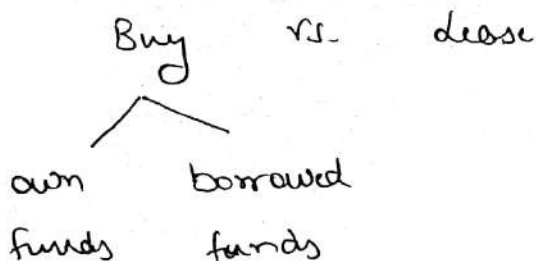
=

=

CA RAHUL GARG

# Lease financing

→ Decision



→ Net Advantage of leasing

$$= \text{Pvco as per Buy Decision} - \text{pvco as per lease}$$



→ Pvco : Buy (Own funds)

Year end	Particulars	CF	PvF @ -%	PVCF
0	Cost of Asset	-		
1-n	Tax sav. on Dep	+		
n	Sv	+		

—  
=



→ Prco: Buy (Borrowed Funds)

Year end	Particulars	CF	PVF @ $r\%$	PrCF
0	Down Payment (Cost - Borrow)	-		
1-n	Tax sav. on Dep	+		
1-n	Principal	-		
1-n	Int. $(1-t)$	-		
n	SV	+		
				<u>    </u>
				<u>    </u>

→ Prco: Lease

$$\text{Lease Rent } (1-t) \times AF(r\%, n)$$

→ If Discounting Rate: not given  $\Rightarrow$  Int.  $(1-t)$

→ If amt. of installment not given

$$= \frac{\text{Amount of loan}}{AF(r\%, n)}$$

## Dividend Decisions

(55)

(62)

### Gordon Model

$$P = \frac{E(1-b)}{k - (b \times r)}$$

E = Earning per share

P = Price per share

b = Retention Ratio

k = Cost of Capital

r = Rate of Return

### Walter Model

$$P = \frac{D + \frac{r}{k}(E-D)}{k}$$

P = Price per share

D = Div per share

### Traditional Model (Graham & Dodd Model)

$$P = m \left( D + \frac{E}{3} \right)$$

m = multiplier

### Lintner Model

$$D_1 = D_0 + [(EPS \times \text{Target Payout}) - D_0] \times Af$$

Af = Adjustment Factor

## MM Hypothesis

(1) computation of  $P_1$

$$P_0 = \frac{D_1 + P_1}{1 + k}$$

$P_0$  = current selling price

$D_1$  = D/D at the end

$P_1$  = selling price after 1 year

$k$  = cost of capital

(2) computation of  $m$

$$mP_1 = I - (E - nD_1)$$

$m$  = no. of new shares

$I$  = Investment

$E$  = Earning

$n$  = no. of existing shares

(3) Value of firm

$$nP_0 = \frac{(n+m)P_1 - I + E}{1+k}$$

All the above 3 steps are to be performed

(a) in presence of D/D

(b) in absence of D/D

COST AND WORKS ACCOUNTS EXAM

# “No excuses for go-getters”

Monetary hardship, partial vision loss and a parent's illness, could not stand in the way of 23-year-old Rahul's success. Today, Rahul who is also a qualified CA and CS, is in a position to care for his parents and chart out a successful career for himself. He aspires to start his own practice at the age of 35

by Urmila Rao

**T**his Chandigarh boy appeared for the CWA exam in June 2009, and simultaneously wrote the Company Secretary (CS) final exams. “I had cleared the second levels i.e., the Intermediate Levels of both CWA and CS, securing first rank in the former and fourth in CS,” says Rahul. “One is eligible to attend both the exams, without the dates overlapping,” he adds

CWA course can be completed in three stages; Foundation, Intermediate and Final. Minimum eligibility for the Foundation is Class 12. Graduates are exempted from the Foundation Level

The CWA qualification trains a candidate in areas of accounting, cost and management, audit and tax functions among others, and a CWA professional maintains and scrutinises statutory book of accounts, prepares cash budgets, cash flow statements. Of late, they also provide consultancy services to corporate business houses.

“Enrolment to the Intermediate/Foundation Course is open throughout the year and the exams are conducted in June and December,” he shares.

A certified CWA and CS, Rahul is

## RAHUL'S STUDY STRATEGIES

- Allotted five hours a day for two months to his toughest subjects - Management Accounting & Financial Analysis and Direct Taxes. Coaching in these areas also helped
- Referred to books by Munish Bhandari for Law, V K Aggarwal for Auditing, and Bangar for Indirect Taxes. His favourites are Tulsian and G Sekar
- Coaching classes helped but it was his self-study which helped him ace professional exams such as CA, CS and CWA
- A positive attitude was a must, and he put in “200 percent” in attempt 1, as failure and reappearing for an exam was not an option



Rajesh Thakur/Outlook Group

### RAHUL GARG

LOCATION: Chandigarh  
 ROLL NO: 900879  
 PERCENTAGE: 64.38  
 YEAR: 2009

also a qualified Chartered Accountant, currently working as senior In-charge, Accountant and Assurance at global firm Grant Thornton

After completing Class 12 at the Government Model School in 2004 and toping with 90.20 percent marks, Rahul enrolled in the CA course simultaneously with BCom, graduated in 2006 and obtained CA qualification in 2008.

But the journey to the top was not easy. Rahul, the third and youngest child in the family, was no stranger to financial hardships. His father is a driver by profession and his mother, a homemaker. And by sheer bad luck, Rahul lost partial vision during a game of bow and arrows.

But despite tough times during

childhood, Rahul's confidence reigns supreme. “For go-getters, there are no excuses,” says Rahul. Inspired by his neighbours whose economic situation improved immensely after a family member became a Chartered Accountant after completing the CA programme successfully, Rahul decided to follow suit. “The fact that a CA has the authority to authenticate a company's balance sheet, also fascinated me,” says Rahul.

Currently pursuing Chartered Financial Analyst (CFA) Programme and an MBA (Finance) from ICFAI, the ambitious young man aims to complete both courses in a span of two years and get a dual degree. Next in the line are, an I.S.A (Information Systems Audit) from Institute of Chartered Accountants of India, followed by certificates from CIMA (Chartered Institutes of Management Accountants, UK) and IMA (Institute of Management Accountants, USA).

“I want to study and be recognised in my area of work,” he says about his acquisitions. Though the CWA qualification is perceived as being a notch below CA with a 40-45 percent of average salary difference, it's the diverse knowledge and increased perspective that is fascinating. “A wider knowledge base will enable me to hold a top corporate position at an early age,” he says.

Despite his doctor's advice not to strain his eyes, Rahul remains academically active. Post work, he coaches CA and CWA aspirants. He has also authored four books for commerce graduates. “I have presented the content in a simple, systematic, interesting format,” says Rahul, who wants to start his own practice by the time he turns 35. □

## About the Author...



**RAHUL GARG** is an energetic professional and his distinguished & exceptional teaching style has made thousands of aspiring professionals to conquer their exams successfully.

**Gold Medalist**

**All India Rankholder in CA, CS, CMA**

### Professional Qualifications

- ✓ B.Com (GGDSD College, P.U.)
- ✓ CS (ICSI)
- ✓ CA (ICAI)
- ✓ CMA (ICAI)
- ✓ CFA (ICFAI)
- ✓ DISA (ICAI)
- ✓ MBA (Finance)
- ✓ Adv. Dip. Mgt. (ICFAI)

### Awards & Achievements

- ✓ Covered by the National Magazine 'Career 360' amongst 12 National Toppers in 2010.
- ✓ Awarded by Mr. Atal Bihari Vajpayee for exceptional performance in academics

### As a Faculty

- ✓ Guiding the students of CA, CS, CMA for past 7 years
- ✓ Time Management Skills
- ✓ Stress Management Skills
- ✓ How to Attempt
- ✓ 1 Day Capsule

### Professional Journey

- ✓ AIR 1 (CMA Inter)
- ✓ AIR 3 (CMA Final)
- ✓ AIR 4 (CS Inter)
- ✓ AIR 13 (CS Final)
- ✓ AIR 41 (CA PE II)
- ✓ Distinction (CA PE I)
- ✓ Distinction (B. Com)

### Boards & Committees

- ✓ Past Visiting Faculty at ICAI, Chandigarh
- ✓ Past Visiting Faculty at Chitkara University
- ✓ Past Joint Director (Coaching), ICAI (Cost)
- ✓ Past Secretary, ICAI (Cost)

### International Representations

- Worked with International Firms & Business Advisors
- ✓ Grant Thornton
  - ✓ Ernst & Young