

AGGREGATE DEMAND AND RELATED CONCEPTS

* AGGREGATE DEMAND (AD) :-

"Aggregate demand (AD) refers to the total value of final goods and services which all the sectors of an economy are planning to buy at a given level of income during a period of one accounting year."

$$AD = \text{Consumption (C)} + \text{Investment (I)}$$

* COMPONENTS OF AGGREGATE DEMAND :-

(1) Private (Household) Consumption expenditure :-

"It refers to the total expenditure incurred by household on purchase of goods and services during an accounting year."

(2) Net exports :- $(X - M)$

- Export (X) indicate demand for goods produced within the domestic territory of country by rest of world.

- Imports (IM) refers to demand of residents of a country of the goods that have been produced abroad.
- The difference between exports and Imports is termed as net exports.

(3) Government Expenditure :-

⁶⁶ It refers to the total expenditure incurred by government on consumer goods and capital goods to satisfy common needs of country.

- Government Spend on Defense, law and order, education, Health, etc.

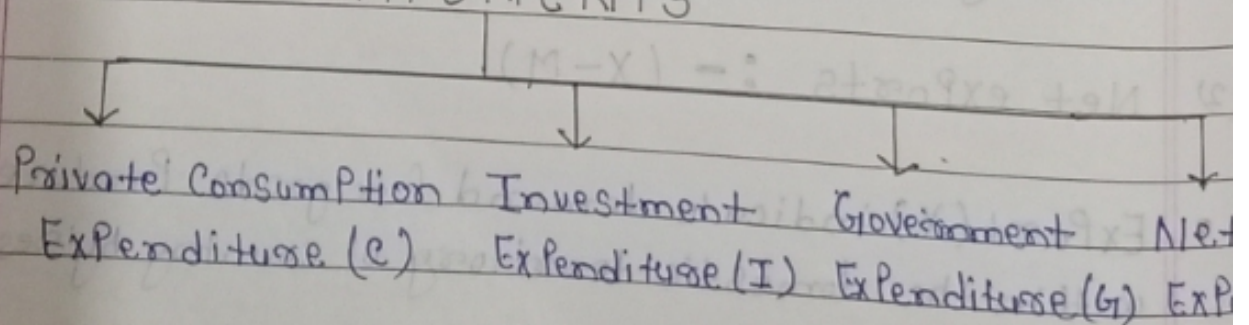
(4) Investment Expenditure :-

⁶⁶ It refers to the total expenditure incurred by all private firms on capital goods.

- Includes stock of Physical capital assets like machinery, equipments, buildings, etc.

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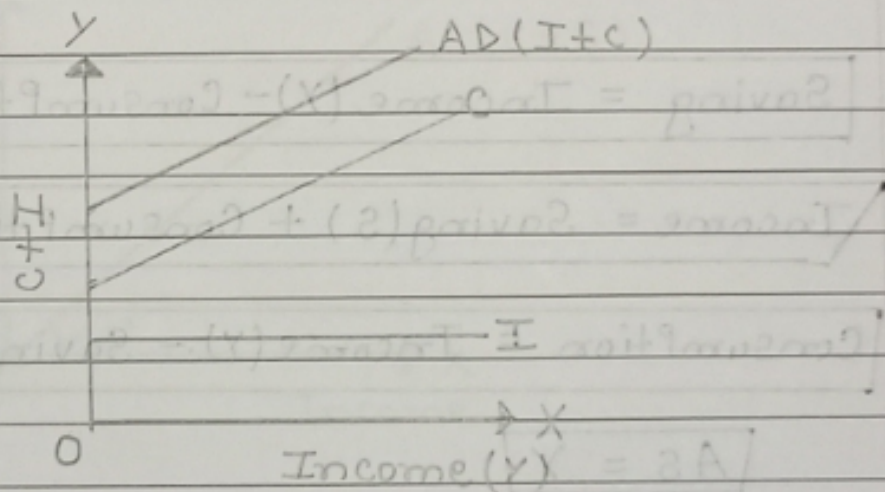
COMPONENTS



* AGGREGATE DEMAND IN TWO SECTOR ($AD = C + I$):-

Income (Y)	Consumption (C)	Investment (I)	AD (C+I)
0	40	100	140
100	120	100	220
200	200	100	300
300	280	100	380
400	360	100	460
500	440	100	540
600	520	100	620

Diagram:-



- There is always some minimum level of consumption. Even income is below zero because people need certain basic goods to sustain themselves.
- AD Curve has a positive slope, which indicates that as income increases, AD also increases.
- Investment Expenditure (I), is a straight line parallel to X-axis as it is assumed an autonomous level of Investment.

* AGGREGATE SUPPLY ($AS = C + S$) :-

⁶⁶ Aggregate Supply (AS) refers to money value of final goods and services that all the Producers are willing to supply in an economy in given time period.

• Components of Aggregate Supply :-

(i) Consumption Expenditure :-

Household

Government

$$\text{Saving} = \text{Income (Y)} - \text{Consumption (C)} \quad \text{--- (i)}$$

$$\text{Income} = \text{Saving (S)} + \text{Consumption (C)} \quad \text{--- (ii)}$$

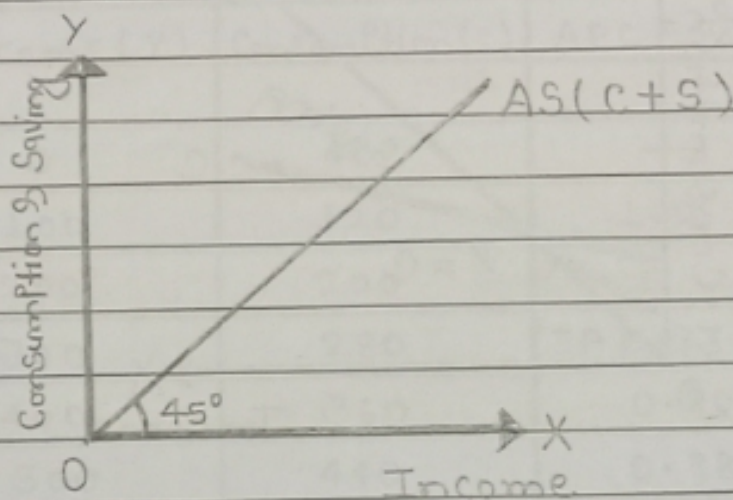
$$\text{Consumption} = \text{Income (Y)} - \text{Saving (S)} \quad \text{--- (iii)}$$

$$AS = Y$$

$$AS = \text{Consumption (C)} + \text{Saving (S)}$$

- Diagrammatic Representation of AS :-

Income (Y)	Consumption (C)	Saving (S)	AS (C+S)
0	40	-40	0
100	120	-20	100
200	200	0	200
300	280	20	300
400	360	40	400
500	440	60	500



- A 45° line represents the aggregate supply.

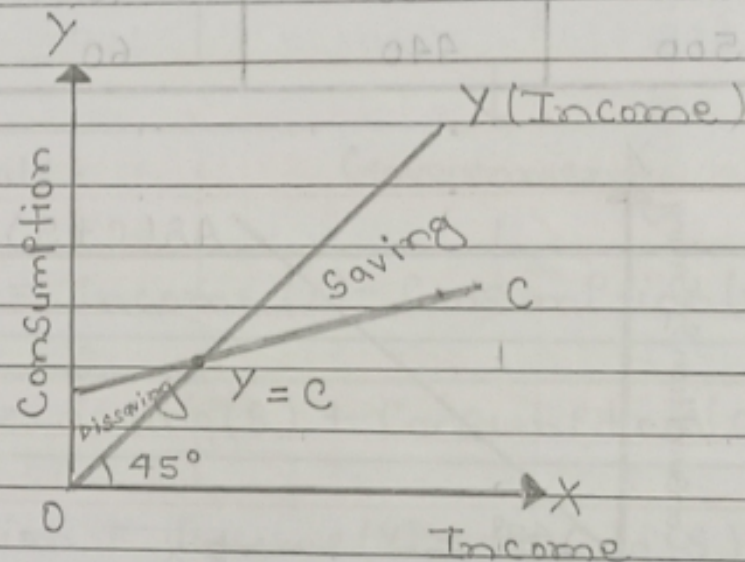
* CONSUMPTION FUNCTION (Propensity to Consume) :

“Consumption function refers to functional relationship between Consumption and National Income.”

$$C = f(Y)$$

Where C = Consumption, Y = Income, F = Functional Rel

Income (Y)	Consumption (C)	Saving (S)
0	40	-40
100	120	-20
200	200	0
300	280	20
400	360	40
500	440	60



* TYPES OF PROPENSITY TO CONSUME :-

PROPENSITY TO CONSUME

Average Propensity
to Consume (APC)

Marginal Propensity
to Consume (MPC)

• AVERAGE PROPENSITY TO CONSUME (APC) :-

“Average Propensity to Consume refers to the ratio of Consumption expenditure to the corresponding level of income”

$$APC = \frac{\text{Consumption (C)}}{\text{Income (Y)}}$$

Schedule and Diagram :-

Income (Y)	Consumption (C)	APC = $\frac{C}{Y}$
0	40	—
100	120	1.2
200	200	1
300	280	0.93
400	360	0.90
500	440	0.88

- APC falls continuously with increase in income.
- APC can never be zero because Consumption is never zero at any level of income.
- MARGINAL PROPENSITY TO CONSUME :-

“Marginal Propensity to Consume refers to the ratio of change in Consumption expenditure to change in total income”

$$MPC = \frac{\text{Change in Consumption } (\Delta C)}{\text{Change in Income } (\Delta Y)}$$

- Schedule :-

Income (Y)	Consumption (C)	$MPC = \frac{\Delta C}{\Delta Y}$
0	40	-
100	120	0.80
200	200	0.80
300	280	0.80
400	360	0.80
500	440	0.80

- MPC of Poor is more than that of rich, because Poor People Spend a greater Percentage of their increased income on consumption as most of their basic needs remain unsatisfied.

* SAVING FUNCTION (PROPENSITY TO SAVE) :-

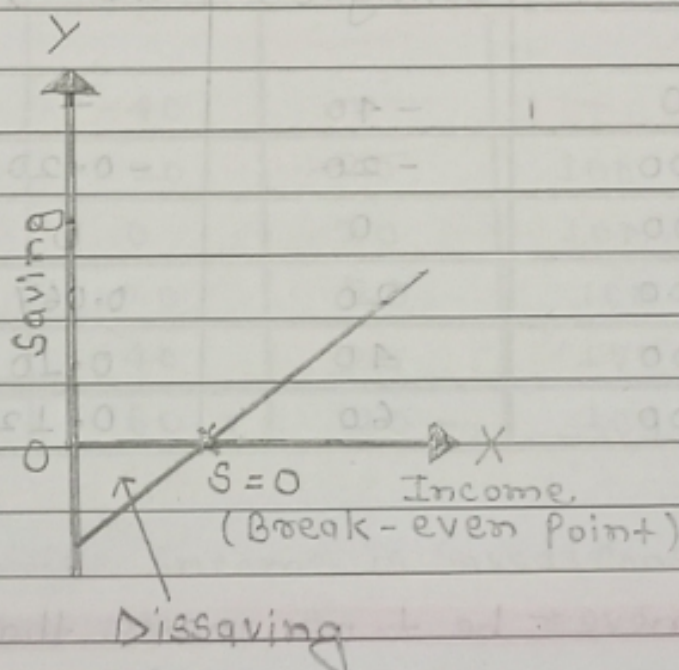
⁶⁶ Saving function refers to the functional relationship between saving and national income⁹⁹.

$$S = f(Y)$$

Where S = Saving, Y = National Income, F = Functional Relationship

Diagram and Schedule of Propensity to Save :-

Income (Y)	Consumption (C)	Saving (S) = $Y - C$
0	40	-40
100	120	-20
200	200	0
300	280	20
400	360	40
500	440	60



* TYPES OF PROPENSITY TO SAVE :-

PROPENSITY TO SAVE

Average Propensity
to Save (APS)

Marginal Propensity
to Save (MPS)

• Average Propensity to Save (APS) :-

"Average Propensity to Save refers to the ratio of Saving to the corresponding level of income."

$$APS = \frac{\text{Saving (S)}}{\text{Income (Y)}}$$

Schedule :-

Income (Y)	Saving (S)	APS = $\frac{S}{Y}$	Consumption
0	-40	-	40
100	-20	-0.20	120
200	0	0	200
300	20	0.067	280
400	40	0.10	360
500	60	0.12	440

• APS Can never be ≥ 1 or more than 1 :-

As Saving can never be equal to or more than national income.

• APS Can be 0 :-

APS = 0 as Saving Zero at income level ₹ 200

• APS Can be negative or less than 1 :-

At income level which are lower than break

even point, APS can be negative there is dissaving

• MARGINAL PROPENSITY TO SAVE (MPS):-

⁶⁶ Marginal Propensity to Save refer to the ratio of change in Saving to change in income.³³

$$MPS = \frac{\text{Change in Saving } (\Delta S)}{\text{Change in Income } (\Delta Y)}$$

Schedule :-

Income (Y)	Saving (S)	ΔS	ΔY	$MPS = \frac{\Delta S}{\Delta Y}$
0	-40	-	-	-
100	-20	20	100	0.20
200	0	20	100	0.20
300	20	20	100	0.20
400	40	20	100	0.20
500	60	20	100	0.20

- If the entire income is Saved (consumption=0) then $MPS = 1$
- If entire income is Consumed (Saving = 0) then $MPS = 0$
- In Normal Situation, value of MPS varies b/w 0 and 1.

* RELATIONSHIP BETWEEN APC AND APS :-

Prove that $APC + APS = 1$

$$Y = C + S$$

Divide both Side by Y

$$\frac{Y}{Y} = \frac{C}{Y} + \frac{S}{Y}$$

$$1 = APC + APS \quad \text{--- (i)}$$

$$APC = 1 - APS \quad \text{--- (ii)}$$

$$APS = 1 - APC \quad \text{--- (iii)}$$

* RELATIONSHIP BETWEEN MPC AND MPS :-

Prove that $MPC + MPS = 1$

$$\Delta Y = \Delta C + \Delta S$$

Divide both Side by ΔY

$$\frac{\Delta Y}{\Delta Y} = \frac{\Delta C}{\Delta Y} + \frac{\Delta S}{\Delta Y}$$

$$1 = MPC + MPS \quad \text{--- (i)}$$

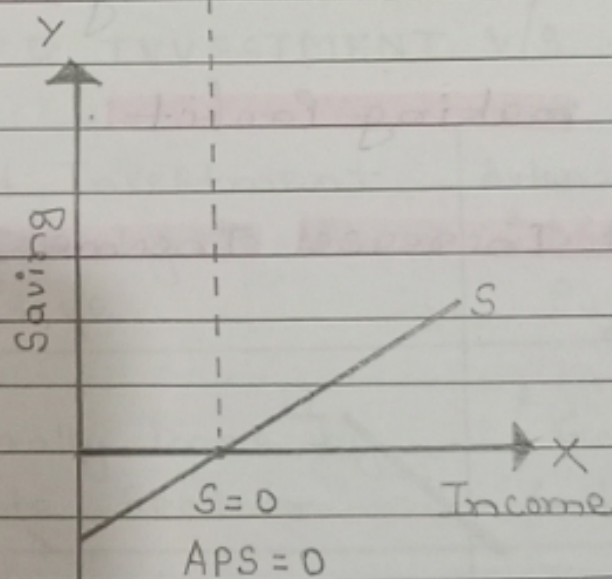
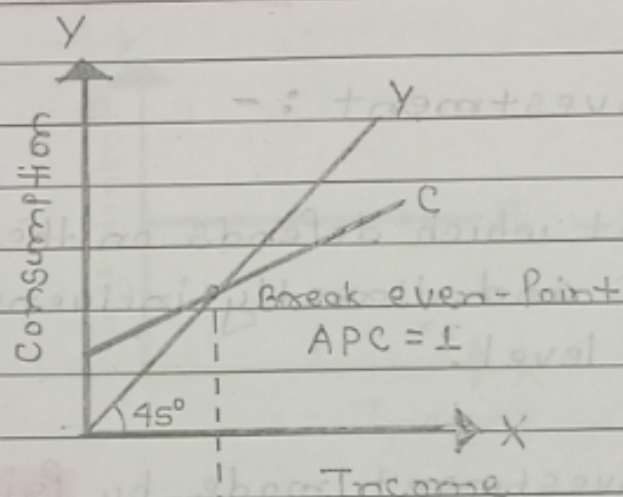
$$MPC = 1 - MPS \quad \text{--- (ii)}$$

$$MPS = 1 - MPC \quad \text{--- (iii)}$$

Note:- When income (Y) is zero, there is some consumption, known as **autonomous consumption (C)** which is always positive.

* RELATIONSHIP B/W INCOME, SAVING AND CONSUMPTION :-

Income (Y)	Consumption (C)	Saving (S)
0	40	-40
100	120	-20
200	200	0
300	280	20
400	360	40
500	440	60

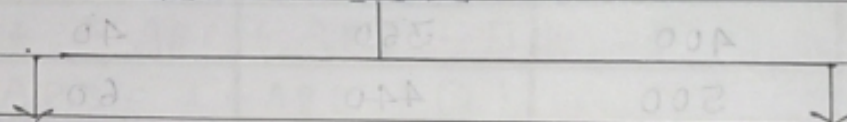


* INVESTMENT FUNCTION :-

⁶⁶ Investment refers to the expenditure incurred on creation of new capital assets.

Example = Machinery, Building, Furniture, etc.

INVESTMENT



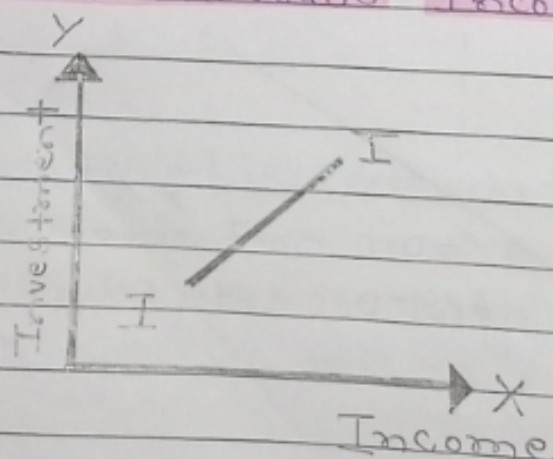
Induced Investment

Autonomous Investment

• Induced Investment :-

⁶⁶ Investment which depends on the profit expectations and directly influenced by income level.

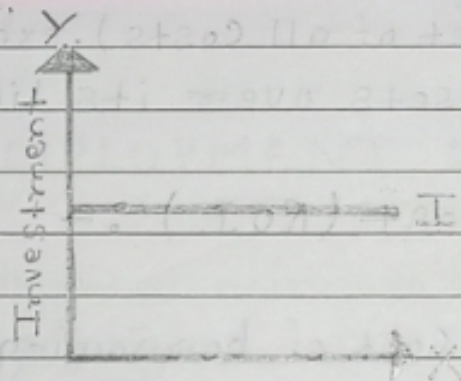
- Induced Investment made by Private Companies
- Invest for making profit.
- Investment Increase Income Increase.



• Autonomous Investment :-

"Investment which is not affected by change in the level of income and not induced solely by Profit motive."

- Autonomous Investment made by government.
- Autonomous Investment Invest for Public Welfare.
- Respective level of income.



* INDUCED INVESTMENT V/S AUTONOMOUS :-

Induced Investment	Autonomous Investment
* Driven by Profit Motive.	* Done for Social, Public welfare.
* Generally Done by Private Sector	* Generally Done by Government Sector
* Its Curve slope upward as it is income elastic.	* Its Curve is Parallel to income.

* DETERMINANTS OF INVESTMENT :-

(i) Marginal Efficiency of Investment (MEI) :-

"MEI refers to the expected rate of return from additional investment."

(a) Supply Price :-

"Cost of producing a new asset of that kind."

(b) Prospective Yield :-

"Net Return (net of all costs), expected from the capital assets over its life time."

(ii) Rate of Interest (RoI) :-

"RoI refers to cost of borrowing money for financing the investment."

* EX-ANTE AND EX-POST SAVING AND INVESTMENT :-

⇒ Ex-ante Variable is Planned value of Variable.

⇒ Ex-Post Variable is actual value of Variable.

• Ex-ante Saving :-

"Amount of Saving which households plan to save at different levels of income."

- Ex-Post Saving :-
 "Ex-Post Saving refers to the actual or realised saving at different levels of income."

- Ex-ante Investment :-
 "Amount of Investment which firms plans to invest at different levels of income."

- Ex-Post Investment :-
 "Ex-Post Investment Refers to the realised or actual investment at different levels of income."

* FULL EMPLOYMENT :-

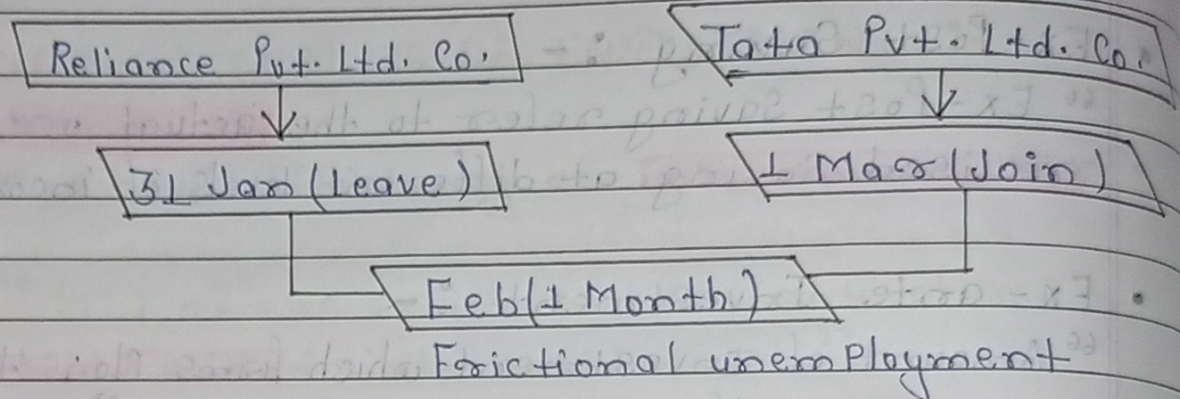
- "Full employment refers to a situation in which all those people who are willing and able to work at existing wage, get work without any undue difficulty."

FULL EMPLOYMENT

Frictional employment Structural employment

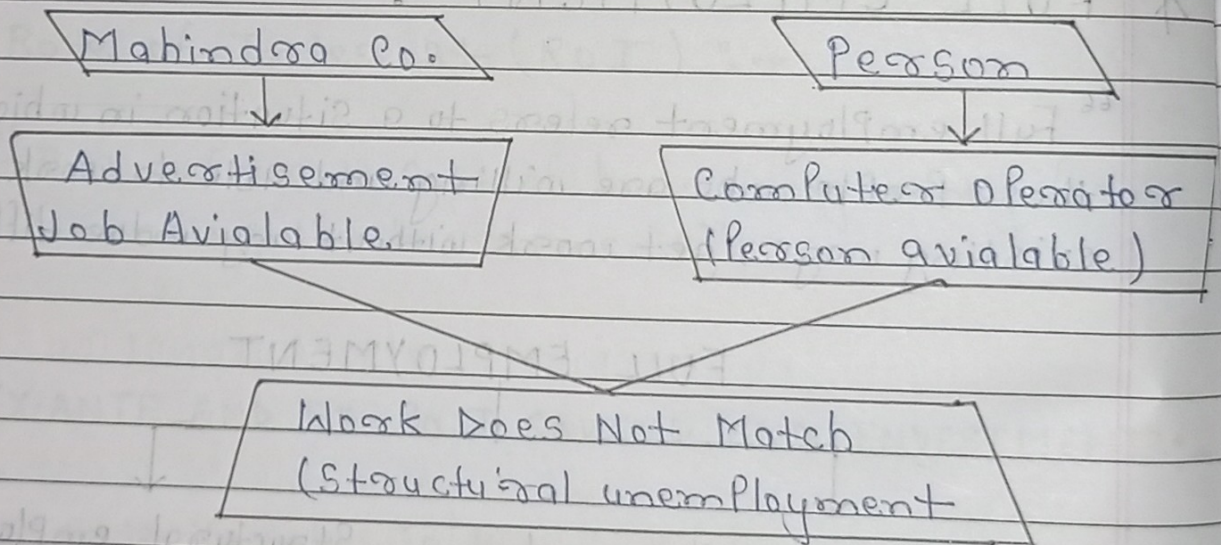
- Frictional Employment :-

- "It refers to temporary unemployment, which exists during the period wherein workers leave one job and join some other."



* STRUCTURAL UNEMPLOYMENT :-

⁶⁶ Unemployment, in which people remain unemployed due to a mismatch between unemployed person and the demand for specific type of workers.



* INVOLUNTARY UNEMPLOYMENT :-

⁶⁶ Involuntary unemployment refers to an unemployment in which all those people, who are willing and able to work at the existing wage rate, do not get work.