

DEPARTMENT OF ECONOMICS

Class : XII 2021-22

Term - 2

Macro Economics

QUESTION BANK

Unit National Income accounting

1. Distinguish between stock and flow. Give an example of each?

Or

Differentiate between real flow and money flow.

2. National Income rose by 8% during the year 2010, Does it represent the growth of every Indian? Discuss.

3. Which of the following are a part of a country's Net Domestic Product at market price? Give reasons in support of your answer.

(i) Indirect tax (ii) Net factor income from abroad (iii) Net exports (iv) Consumption of fixed capital

OR

How will you treat the following while estimating domestic product (or domestic factor income) of India?

(1) Rent received by an Indian resident from his property in Singapore (ii) Salaries received by Indian residents working in Russian embassy in India (ii) Profits earned by a foreign company or a foreign bank in India.

4. State any three precaution while estimating national income by Income method.
5. **“GDP and social welfare are always positively correlated “. Defend or refute with valid reasons.**
6. **Differentiate between capital consumption and capital loss. (2)**

OR

Differentiate between nominal and real GDP.

7. How will the following be treated while estimating national income of India? Give reasons.

(i) Value of bonus shares received by shareholders of a company.
(ii) Capital gains to Indian residents from sale of shares of a foreign company.
iii) Expenditure on engine oil by car service station

8. Giving reasons, classify the following into intermediate goods and final goods.

(i) Ceiling fan purchased by a tailor for his shop.
(ii) Chalks, dusters, etc. purchased by a school.
(ii) Bus purchased by a school.

9. a. From the following data, Calculate Net value added at factor cost 3)

Sr.no.	particulars	₹ in crores
1.	Purchase of raw materials from domestic market	4000
ii	increase in unsold stock sold	600
iii	import of raw material	1200
iv	output sold(units)	1200

v	price per unit of output	10
vi.	Replacement of fixed capital	500
vii	power charges	200
viii	exports	2000
ix	import of machinery	400
x	value added tax	100
xi	subsidy	300
xii	goods use for self consumption	100

b. Describe the components of income from property. (2)

Or

a. From the following data, Calculate national income (3)

Sr.no.	particulars	₹ in crores
i.	Private final consumption expenditure	8000
ii	Government final consumption expenditure	1000
iii	Exports	70
iv	Imports	120
v	Annual allowance for wear and tear of Capital stock	60
vi.	Fixed business investment	300
vii	Residential investment	200
viii	change in stock	100
ix	Factor income to abroad	40
x	Factor income from abroad	90
xi	Net product taxes	400
xii	Net production taxes	250

b. Distinguish between value of output and value added.(2)

10. Distinguish between domestic product and national product. When can domestic product be equal to national product?

11. Which of the following be included in the estimation of National income of India? Give reason

- Purchase of a truck to carry goods by a production unit.
- Rent free house given to an employee by an employer
- Profit earned by a branch of an Indian bank in Canada

12. (a) From the following data calculate Domestic Factor Income: (3)

ITEMS	₹ In crores
(i) Wages and salaries in cash	4000
(ii) Dearness Allowance	200
(iii) Rent free quarter to staff	400
(iv) Subsidized Lunch at workplace	300
(v) Free creche facility to children of employee	450
(vi) Grant given by LIC to injured worker	93
(vii) Entertainment allowance for entertaining business guests	137

(viii) Social Security contribution by an employer	45
(ix) Travelling Allowance reimbursed	77
(x) Leave Travel Allowance	55
(xi) Rent	100
(xii) Interest	200
(xiii) Profit after tax	250
(xiv) Total factor income of self employed	500
(xv) Corporate savings	150
(xvi) Corporate Tax	50

(b) How will you treat the following in estimation of national income: (2)

- (i) Rent received by an Indian from his building rented out to American embassy in India.
(ii) Interest on national debt

OR

(a) Calculate NVA at FC of firm A

(3)

ITEMS	₹ Lakhs
(i) Sale by Firm A to Firm B	3000
(ii) Export by Firm A	500
(iii) Production of goods for self consumption	300
(iv) Sale by Firm A to Government	700
(v) Import of Machinery by Firm A	900
(vi) Import of raw material by Firm A	400
(vii) Value of intermediate Consumption	1100
(viii) Decrease in stocks	200
(ix) Subsidy	100

(b) Differentiate between Net Factor Income from abroad and Net Exports. (2)

13. GDP as an index of welfare may overstate or understate welfare. Explain the statement by using the example of a positive externality

a) 14. Calculate Gross Fixed Capital Formation from the following data:

Particulars	Rs. in Crores
(i) Private final consumption expenditure	1,000
(ii) Government final consumption expenditure	500
(iii) Net exports	(-)50
(iv) Net factor income from abroad	20
(v) Gross domestic product at market price	2,500
(vi) Opening stock	300
(vii) Closing stock	200

b) Distinguish between Gross public fixed investment and Gross fixed residential construction investment

15. Calculate 'intermediate consumption' from the following data:

Particulars	Rs. in lakhs
(i) Value of output	200
(ii) Net value added at factor cost	80
(iii) Sales tax	15

(iv) Subsidy	5
(v) Depreciation	20

Unit Income Determination and Employment

16. Giving reason, state whether following statements are true or false.

(a) An excess of aggregate demand over full employment level of aggregate supply represents a situation of inflationary gap.

(b) An economy facing unintended accumulation of inventories would try to reduce aggregate demand.

17. Why increase in marginal propensity to save is a sign of worry? Explain

18. Find National Income from the following

Autonomous consumption	Rs 100 Cr
Marginal propensity to consume	0.60
Investment	200 Cr

19. Explain the situation of inflationary gap on a diagram.

Also explain the role of the varying reserves requirement in removing this gap.

20. Complete the following table:

Consumption expenditure (Rs)	Saving (Rs)	Income (Rs)	Marginal propensity to consume
100	50	150	-
175	75	-	-
250	100	-	-

21. If in an economy consumption function is given by $C = 100 + 0.75 Y$, and autonomous investment is Rs. 150 crore.

Estimate

- Equilibrium level of income by C+I approach and
- Consumption at the equilibrium level of income.

22. Draw consumption curve and saving curve in a single diagram and mark the 'break-even point'.

23. In an economy planned saving is greater than planned investment. Explain how the economy achieves equilibrium level of national income.

24. . $C = 100 + 0.4 Y$ is the consumption function of an economy where C is consumption expenditure and Y is national income. Investment expenditure is 1,100. Calculate:

- Equilibrium level of national income.

(II) Consumption expenditure at equilibrium level of national income.

25. What is 'deficient demand'? Explain the role of 'bank rate' in removing it.

26. What is 'excess demand'? Explain the role of 'reverse repo rate' in removing it.

27. Assuming that increase in investment is Rs. 1,000 crore and MPC is 0.9, explain the working of multiplier.

28. In an economy the saving function, $S = (-) 50 + 0.5Y$ here (S= Saving and Y = National Income) and Investment = Rs 7000 . From the following data calculate

a) Equilibrium level of National Income

b) Consumption Expenditure at equilibrium level of Income

29. When is an economy in equilibrium? Explain with the help of saving and investment functions. Also explain the changes that place in an economy when the economy is not in equilibrium. Use diagram.

30. Calculate Marginal propensity to save from the following data about an economy which is inequilibrium :

National income = 1,000

Autonomous consumption

expenditure = 100 Investment = 120

Answer Key

Answer Key

1. Stock refers to any quantity that is measured at a particular point in time, while flow is referred to as the quantity that can be measured over a period of time. Both the stock and flow are interdependent on each other. Wealth is stock and Income is flow.

Or

Real flows refer to the flow of the actual goods or services, while money flows refer to the payments for the services (wages, for example) or consumption payments.

2. No, because national income includes the factor income of all the factors of the nation. It does not analyse the distribution of income of every Indian. Some people might have a very high income while others' income might be negligible. Thus 8% growth of national income does not mean the equivalent growth of every Indian. Moreover, if the national income is calculated on a Nominal GDP basis then we cannot accurately judge whether this 8% growth is because of the rise in price or of production. If it is because of rise in price then inflationary growth must be discounted from it.

3. (i) Indirect tax is a part of NDPmp because indirect taxes have not been paid yet to the government.
(iii) Net exports is a part of NDPmp because it is an item of final expenditure.

OR

(i) No, it will not be included in domestic factor income of India because this income is earned outside the domestic territory (economic territory) of India. It is factor income from abroad.

(ii) No, it will not be included in domestic factor income of India because Russian embassy in India is not a part of domestic territory of India. So, this income is not earned within the domestic territory of India. It is factor income from abroad.

(iii) Yes, it will be included in domestic factor income of India because the foreign company or the foreign bank is located within the domestic territory of India. So, it is an income earned within the domestic territory of India.

4. i) Transfer of payments should not be included as there is no value addition in the economy.

(ii) Capital gains from sale of old goods should not be included.

(iii) Commission etc of brokers on sale of old goods should be included as these are reward for rendering factor services.

5. Refuted, Limitations of GDP as an index of welfare i.e. Composition of GDP, Distribution of GDP, Non Monetary exchanges any three valid reasons to prove.

6. Capital consumption : Loss of value of fixed assets due to normal wear and tear and expected obsolescence. Capital loss due to fire, flood and natural catastrophe.

(OR) Nominal estimated at current prices, Real at base year prices.

7. (i) Value of bonus shares received by shareholders of a company is not included in the estimation of national income of India because these are just financial transactions (leading to change of ownership of financial assets), not contributing to the flow of goods and services in the economy.

(ii) Capital gains to Indian residents from sale of shares of a foreign company is not included in the national income

of India because it is a part of financial transactions corresponding to which there is no flow of goods and services in the economy

(iii) Expenditure on engine oil by car service station is not a part of national income as it is an intermediate cost.

8. (i) Ceiling fan purchased by a tailor for his shop is a final good because tailor is the final user of the ceiling fan and no value is to be added to the ceiling fan. This will be deemed as investment expenditure because ceiling fan is used by the tailor for several years and is of high value.

(ii) Chalks, dusters, etc. purchased by a school are intermediate goods as these are used up in the process of value addition during the year.

(iii) Bus purchased by a school is final good. School purchases bus as long-term durable product and it is an investment for school. It is not for re-sale.

9. a. value of output = iv + v + ii + xii

$$12000 + 2000 + 600 + 100 \\ = ₹14700 \text{ crores}$$

$$IC = 4000 + 1200 + 200 \\ = ₹5400 \text{ crores}$$

$$NVA_{fc} = 14700 - 5400 - (100 - 300) - 500 \\ = ₹9000 \text{ crores}$$

b. Income from property – rent, royalty and interest .

OR

a. $GDP_{mp} = 8000 + 1000 + (300 + 200 + 100) + (-50)$
 $= ₹9550 \text{ crores}$

National income $= 9550 - 60 - 400 - 250 + (90 - 40)$
 $= ₹8890 \text{ crores}$

b. Value of output is the estimated money value of all the goods and services, inclusive of change in stock and production for self-consumption. Whereas, Value added is the excess of value of output over the value of intermediate consumption.

10. National income is a national concept which is generated by normal resident in any part of the world whereas domestic income is a domestic concept and it must be generated within economic territory of the country irrespective of the fact who generates it whether resident or non-resident, therefore it is important to add FIFA to domestic income in order to find national income. National income can be equal to domestic income when FIFA is zero.
11. i. Yes, capital good
ii. Yes, wages in kind
iii. Yes, factor income from abroad

Q12 (a)
DOMESTIC FACTOR INCOME (NDP_{fc}) =
CDE + OS + MI (TOTAL FACTOR INCOME OF SELF EMPLOYED)
CDE = WAGES & SALARIES IN CASH
+ WAGES & SALARIES IN KIND
+ S.S. CONTRIBUTION BY EMPLOYER
CDE = (i) + (ii) + (iv) + (v) + (viii)
CASH KIND SS CONTRIBUTION
 $4000 + (400 + 300 + 450) + 45 = 5195$
OS = RENT + INTEREST + PROFIT AFTER TAX + PROFIT
(xi) + (xii) + (xiii) + (xvi)
 $100 + 200 + 250 + 50 = 600$
MI = TOTAL FACTOR INCOME OF SELF EMPLOYED
 $= 500$
NDP_{fc} = $5195 + 600 + 500$
 $= ₹ 6295 \text{ CRORES}$

(b) INCLUDED, FACTOR INCOME FROM ABROAD.
(ii) NOT INCLUDED, IT IS ASSUMED THAT IT IS TAKEN FOR CONSUMPTION PURPOSE.

12.

12 (OR) PART
(a)
 $VDD = \text{SALE} + \Delta \text{ IN STOCKS}$
(i) + (iv) + (ii) + (iii) + (-viii) (vii)
(i) (ii) (iii) (iv) (vii)
 $3000 + 500 + 300 + 700 + (-200)$
 $= ₹ 4300 \text{ Lakhs}$
 $GDP_{MP} = VDD - IC$
 $4300 - 1100 = ₹ 3200$
 $NDP_{fc} = GDP_{MP} - (IT - SUB)$
 $3200 - (0 - 100)$
 $= ₹ 3300 \text{ CRORES}$

(b) NFYFA is the difference between factor income from abroad and factor income paid to abroad. It is national concept whereas Net export is the difference between exports and imports in an accounting year and it is domestic concept.

13. **Positive externalities-** Production activities that results in benefits to others and increase welfare of the people are called positive externalities like

1. The benefits of street lights or park are equally availed by all the people living in that area without paying for it.
2. Similarly benefits of flyovers reduce transportation cost and journey time.
3. Positive externalities increase welfare of the people but only expenditure on construction of GDP is taken into account but not positive externality that comes with it. Thus, GDP as an index underestimates welfare.

14. a. **Gross Fixed Capital Formation**

$$= (v)-(i)-(ii)-(iii)-\{(vii)-(vi)\}$$

$$= 2,500 - 1,000 - 500 - (-) 50 - \{200 - 300\}$$

$$= \text{Rs. } 1,150 \text{ crores}$$

- b. Gross public fixed investment** – it refers to capital formation by the govt. sector in the form of buildings of roads, bridges, schools, dams, canals, etc.

Gross fixed residential construction investment – it refers to the purchase of or construction of new housing units by household sector. But it does not include purchase of other expensive consumer durables like cars, ACs, Washing-machines etc. these are included in private final consumption expenditure.

$$15. \text{GDPmp} = \text{NDPfc} + \text{Dep} + \text{NIT} = 80 + 20 + 10 = 110$$

$$\text{GDPmp} = \text{value of output} - \text{IC}$$

$$110 - 200 = -\text{IC}$$

$$\text{IC} = 90$$

Unit Income Determination

16. a) The given statement is true; an excess of aggregate demand over full employment level of aggregate supply represents a situation of inflationary gap, production cannot be increased beyond this level. Increase in AD here onwards, will increase only the general price level.

(b) The given statement is not correct; The situation of unintended accumulation of inventories arises when ex-ante aggregate demand is lesser than the ex-ante aggregate supply. This would pile up the stock with the producers, thus to tackle this situation the economy must increase AD.

17. This is because higher value of MPS implies people are saving larger part of their increased income while value of consumption expenditure falls and as a result there will be less encouragement among firms to increase the investment level which in turn will lead to fall in output level which will lead to fall in employment and income level in economy.

$$18. \text{AS} = \text{AD}$$

$$Y = c + bY + I$$

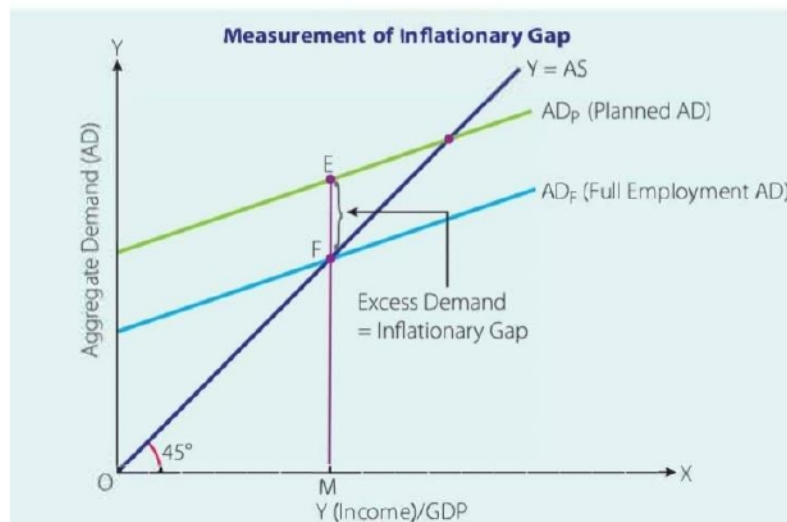
$$Y = 100 + 0.60Y + 200$$

$$0.4Y = 300$$

$$Y = 750$$

19. Inflationary gap occurs when $AD > AS$ corresponding to full employment level. This inflationary gap, i.e., excess of

Aggregate Demand causes inflation in the economy and price levels tend to rise.



Inflationary Gap = Excess Demand = EF

Role of varying Reserves to Correct the Problem of Inflationary Gap

Legal reserves like Cash Reserve Ratio and Statutory Liquidity Ratio are the tools to correct the problem of inflationary gap

—To correct the problem of inflationary gap, the Central Bank increases the CRR.

— During the situation of inflationary gap, SLR is increased.

20. Complete the following table:

Consumption expenditure (Rs)	Saving (Rs)	Income (Rs)	Marginal propensity to consume
100	50	150	-
175	75	250	$75/100=0.75$
250	100	350	$75/100=0.75$

21. (i) we know, $Y = C + I$

$$Y = 100 + 0.75 Y + 150$$

$$0.25Y = 250$$

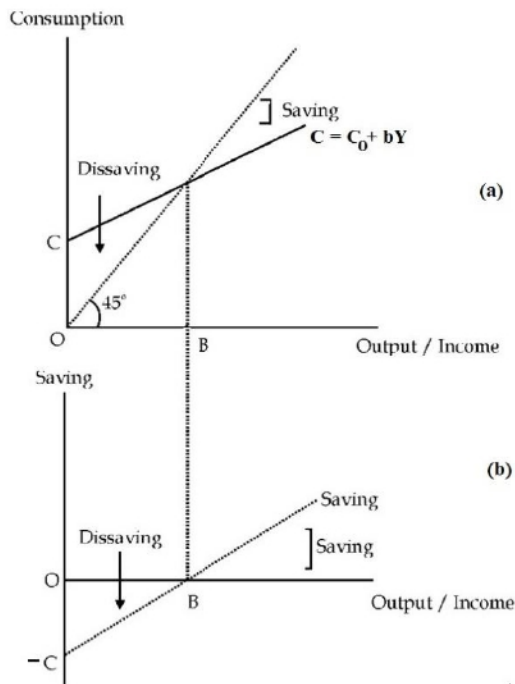
$$Y = 250 / 0.25 = 25000 / 25 = \text{Rs. } 1000 \text{ crores}$$

Thus at Equilibrium level of income by C+I approach is Rs. 1000 crores

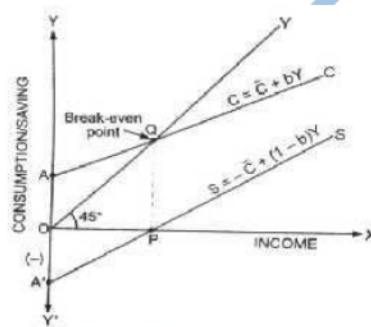
(ii) $C = 100 + 0.75 Y$

$$C = 100 + 0.75 * 1000 = 100 + 750 = \text{Rs. } 850 \text{ crores}$$

22.



OR



It involves the following steps :

- (i) We take $OA = OA'$. Because OA' = negative saving when $Y = 0$, and this is exactly equal to minimum consumption when $Y = 0$.
- (ii) Point Q on the y -line is marked corresponding to point P on the Saving curve.
- (iii) By joining points A and Q and stretching it to form a straight line, we get C curve. C-Function is linear as it is derived from a linear S - function.

23. Suppose planned saving is higher than planned investment. It means that households are not consuming as much as the firms had anticipated. In other words, planned output is greater than planned demand.

As a result, producers see a rise in their inventory level, beyond the planned level. To bring back inventory to the planned level, producers cut down production. This reduces aggregate output. The process continues till aggregate demand equals the output produced in the economy i.e. planned investment becomes equal to planned saving.

24. (I) Equilibrium level of national income= 2000

(II) Consumption expenditure at equilibrium level of national income = 900

25. **Deficient Demand:-** 'Deficient demand (Deflationary gap) refers to situation when Aggregate Demand is less than Aggregate Supply ($AD < AS$) corresponding to full employment level in the economy'.

Bank Rate: It refers to the rate of interest charged by the Central Bank on the loans & advances given to the Commercial Banks. The Bank Rate and Repo rate is determined by the Central Bank itself. **Correction of Deficient demand (Deflationary gap situation:** (i) The RBI (CB) Reduced the bank rate and Repo rate. (ii) Which leads to reduced in rate of interest. (iii) This leads to reduced the savings & Raised the demand for loans (iv) There is a increase in purchasing power & further raised in AD and correct and Deficient demand (Deflationary gap) situation.

26. **EXCESS DEMAND:** Excess demand Inflationary gap) refers to situation when Aggregate Demand is more than Aggregate Supply ($AD > AS$) corresponding to full employment level in the economy'.

Reverse repo rate: This induces the commercial bank to park their surplus funds with the RBI for short period of time. **To Correction situation Deficient demand (Deflationary gap) :** (i) Reverse repo rate is Decrease. (ii) As a follow-up action, the commercial bank will be reduce their deposits with the RBI (CB) (iii) This, in turn, will increase their ability to land money. (iv) Consequently, consumption and investment expenditure will be increased . (v) Implying a increased in AD correct and Deficient demand (Deflationary gap) situation.

27. **WORKING OF MULTIPLIER:-** Assuming that increase in investment is Rs. 1,000 crore and MPC is 0.9 . Explain the working of multiplier.

Multiplier is the ratio of a change in income (ΔY) to a given change in investment (ΔI).

$$K = (\Delta Y) / (\Delta I)$$

Round	ΔI	ΔY	Change in consumption [$MPC(\Delta Y)$]	Saving
1	1,000	1,000	900 (0.9 x 1,000)	100
2			810 (0.9 x 900)	90
3			729 (0.9 x 810)	81
4			656.1 (0.9 x 720)	72.9
And so On				
	$\Delta I = 1,000$	$\Delta Y = 10,000$	9,000	1,000

$$K = 1 / 1 - MPC$$

$$= 1 / 1 - 0.9 = 1 / 0.1 = 10$$

Given that $\Delta I = 1,000$, $K = 10$
 $\Delta Y = 10 \times 1,000$
 = Rs 10,000 crore.

b) 28. $S = -50 + 0.5Y$, $I = 7000$

28. A) For equilibrium $S = I$

$$-50 + 0.5Y = 7000 \text{ (Substituting the value of saving and}$$

$$\text{Investment)} 0.5 Y = 7000 + 50$$

$$0.5 Y = 7050$$

$$Y = 7050 \times 2 = \text{Rs } 14100 \text{ (Equilibrium level of National Income)}$$

B) Consumption expenditure at equilibrium

level of income as we know $Y = C + I$

So $Y = 14100$. $I = 7000$ therefore

$$C = Y - I = 14100 - 7000 = \text{Rs } 7100 \text{ (at equilibrium level of Income)}$$

29. An economy is in equilibrium at a point where ex- ante or planned saving is equal to planned investment. This is because in equilibrium:

$$AS = AD \quad Y = C + S \text{ and}$$

$$AD = C + I$$

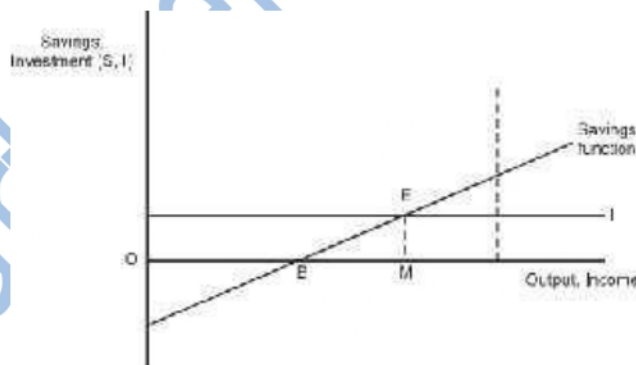
$$C + S = C + I$$

$$S = I \quad (\text{as } C \text{ is common on both side of the equation}) \text{ (Alternative Approach)}$$

INCOME (Y)	CONSUMPTION (C)	SAVING(Y-C) (S)	INVESTMENT (I)
0	50	-50	100
100	100	0	100
200	150	50	100
300	200	100	100
400	250	150	100
500	300	200	100
600	350	250	100

Equilibrium is struck when :

$S = I = 100$ and equilibrium income = 300 at the level $AS = AD(300\text{each})$



Equilibrium is struck at point E where S and I lines intersect each. EM is the equilibrium level of income.

ADJUSTMENT MECHANISM:

(iii) $S > I$ (Planned S > Planned I)

(iv) $S < I$ (Planned S < Planned I)

$S > I$ (Planned S > Planned I):- In such situation , the following changes will occur.

(vi) Stock of the producer would be in excess of desired limit.

(vii) Profits will start shrinking.

(viii) Planned output for the subsequent year will fall.

(ix) Level of income and employment will tend to shrink to the point where $S = I$.

(x) The economy will come back to the state of equilibrium.

$S < I$ (Planned S < Planned I):- In such situation , the following changes will occur.

- (v) Existing stock of the producers will not be enough to cope with the level of AD.
- (vi) Profits will not be maximum because the desired level of stock is not available.
- (vii) Producers will plan higher level of output for the subsequent years.

Level of income and employment will rise to drive the economy to the point of equilibrium

30. At the equilibrium level , $Y = C + I$

$$Y = C + MPC(Y) + I$$

$$1000 = 100 + MPC(1000) + 120$$

$$1000 = 220 + 1000(MPC)$$

$$1000(MPC) = 780$$

$$MPC = 780 / 1000 = 0.78$$

$$MPS = 1 - MPC, \text{ MPS} = 1 - 0.78 = 0.22$$

