

## Economics 2019 All India - Set-1

### General Instructions :

- (i) All questions in both the sections are compulsory.
  - (ii) Marks for questions are indicated against each question.
  - (iii) Question Nos. **1 - 4** and **13 - 16** are very short-answer questions carrying **1** mark each. They are required to be answered in **one sentence** each.
  - (iv) Question Nos. **5 - 6** and **17 - 18** are short-answer questions carrying **3** marks each. Answers to them should normally not exceed **60** words each.
  - (v) Question Nos. **7 - 9** and **19 - 21** are also short-answer questions carrying **4** marks each. Answers to them should normally not exceed **70** words each.
  - (vi) Question Nos. **10 - 12** and **22 - 24** are long-answer questions carrying **6** marks each. Answers to them should normally not exceed **100** words each.
  - (vii) Answers should be brief and to the point and the above word limits should be adhered to as far as possible.
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### Question 1

The Total Revenue earned by selling 20 units is ₹ 700. Marginal Revenue earned by selling 21<sup>st</sup> unit is ₹ 70. The value of Total Revenue earned by selling total 21 units will be \_\_\_\_\_. Choose the correct alternative)

- (a) ₹ 721
- (b) ₹ 630
- (c) ₹ 770
- (d) ₹ 720

### SOLUTION:

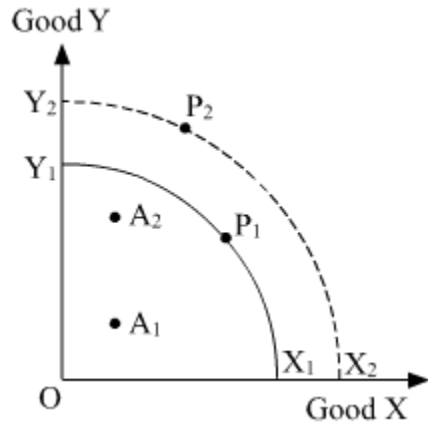
The Total Revenue earned by selling 20 units is ₹ 700. Marginal Revenue earned by selling 21<sup>st</sup> unit is ₹ 70. The value of Total Revenue earned by selling total 21 units will be ₹ 770.

Hence, the correct answer is option (C).

### Question 2

In the given figure  $X_1Y_1$  and  $X_2Y_2$  are Production Possibility Curves in two different periods  $T_1$  and  $T_2$  respectively for Good X and Good Y.  $A_1$  and  $A_2$  represent actual outputs and  $P_1$  and  $P_2$  represent potential outputs respectively in the two times periods.





The change in actual output of Goods X and Y over the two periods would be represented by movement from \_\_\_\_\_ . (Fill up the blank)

- (a)  $A_2$  to  $P_2$
- (b)  $A_1$  to  $P_2$
- (c)  $P_1$  to  $A_2$
- (d)  $A_1$  to  $A_2$

**SOLUTION:**

The change in actual output of Goods X and Y over the two periods would be represented by movement from  $A_1$  to  $A_2$ . Hence, the correct answer is option (D).

**Question 3**

Under imperfect competition, Average Revenue (AR) remains \_\_\_\_\_ Marginal Revenue (MR). (Fill up the blank)

**OR**

"For a firm to be in equilibrium, Marginal Revenue (MR) and Marginal Cost (MC) must be \_\_\_\_\_ and beyond that level of output Marginal Cost must be \_\_\_\_\_." (Fill up the blank)

**SOLUTION:**

Under imperfect competition, Average Revenue (AR) remains above Marginal Revenue (MR).

**OR**

"For a firm to be in equilibrium, Marginal Revenue (MR) and Marginal Cost (MC) must be equal and beyond that level of output Marginal Cost must be rising".

**Question 4**

If the supply curve is a straight line parallel to the vertical axis (Y-axis), supply of the good is called as \_\_\_\_\_. (Fill up the blank)

- (a) Unitary Elastic Supply
- (b) Perfectly Elastic Supply
- (c) Perfectly Inelastic Supply
- (d) Perfectly Elastic Demand

**SOLUTION:**

If the supply curve is a straight line parallel to the vertical axis (Y-axis), supply of the good is called as Perfectly Inelastic Supply. Hence, the correct answer is option (C).

**Question 5**

Distinguish between positive economics and normative economics, with suitable examples.

**SOLUTION:**

The difference between positive economics and normative economics is given as follows:

Basis	Positive Economics	Normative Economics
Definition	Positive Economics deals with factual situations i.e. they describe the actual situation of what was what is and what would be.	Normative Economics deals with the ideal situations of what should be or what ought to be.
Personal Value Judgement	It does not involve any personal value judgement	It involves the personal value judgement
Examples	The rate of inflation at present is 4%.	What should an ideal rate of inflation be?

**Question 6**

Explain the law of diminishing marginal utility, with the help of a hypothetical schedule.

**OR**

Elaborate the law of demand, with the help of a hypothetical schedule.

**SOLUTION:**

Law of Diminishing Marginal Utility states that as a consumer consumes more and more units of a commodity at succession, then Marginal Utility derived from the consumption of each additional unit of the commodity falls.

The Law of Diminishing Marginal Utility is based on the following two basic assumptions.

1. Standard Units and Reasonable Size of Units- A consumer consumes only standard units of the commodity. For example, a whole of an apple and not half of it. Similarly, a glass of water and a spoon of water.
2. Successive Consumption- Consumption of the successive units of the commodity takes place continuously (i.e. without any time lag). This is because if the consumption takes place with a time lag say of an hour or a week (i.e. consumption of one unit of the commodity takes place today and the consumption of the second unit takes place after one week) then, in the next week the consumer will start a fresh valuation of the utility without taking into consideration the utility derived from the consumption of the previous unit of the commodity in the previous week.

In the given schedule when a consumer starts consuming more units of commodity X, then the utility starts diminishing. When a consumer is consuming one unit of good X, the utility derived by it is equal to 50. With the rise in consumption, it diminishes to 30 and finally becomes zero and negative.

Number of Units Consumed of Commodity X	Total Utility	Marginal Utility (MU)
	(TU) (utils)	$MU_n = TU_n - TU_{n-1}$ (utils)
1	50	$50 - 0 = 50$
2	100	$100 - 50 = 50$
3	130	$130 - 100 = 30$
4	150	$150 - 130 = 20$
5	160	$160 - 150 = 10$
6	160	$160 - 160 = 0$
7	150	$150 - 160 = -10$

OR

According to the law of demand, a consumer's demand shares an inverse relationship with the price of a good and vice-versa, ceteris paribus (other things being constant). In other words, if the income, price of related goods and a consumer's tastes and preferences remain unchanged, then the demand of a good move opposite to the movement in the price of those goods.

Law of demand can be explained with the help of the following demand schedule.

Price of Commodity X	Quantity Demanded of X
(Rs)	(units)

5	100
10	75
15	50
20	25

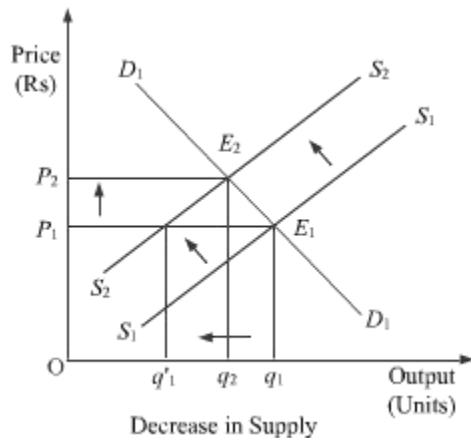
The schedule shows that as the price of the commodity X increases from Rs 10 to Rs 15, the quantity demanded of X falls from 75 units to 50 units. Thus, there is a negative relationship between demand and price.

### Question 7

The market for a good is in equilibrium. How would an increase in an input price affect the equilibrium price and equilibrium quantity, keeping other factors constant? Explain using a diagram.

### SOLUTION:

An increase in input price results in decreases in the supply and no change in demand. The given figure shows how would an increase in an input price affect the equilibrium price and equilibrium quantity:



The market supply falls with the rise in the input prices. As a result, the supply curve shifts parallelly leftwards to  $S_2S_2$  from  $S_1S_1$ . Thus, at the initial price  $OP_1$ , holding demand unchanged, there exist excess demand equivalent to  $(Oq_1 - Oq_1')$  units of output. This excess demand will lead some of the consumers to pay a higher price in order to obtain the extra units of output. The rise in the market price will continue until it reaches  $OP_2$ , where the new supply curve  $S_2S_2$  intersects the initial market demand curve  $D_1D_1$ . The new equilibrium is established at point  $E_2$  with the equilibrium price as  $OP_2$  and equilibrium output as  $Oq_2$ . At the new equilibrium, the equilibrium price has risen, whereas, the equilibrium quantity has fallen.

To summarise,

Decrease in supply (due to a rise in the input prices)  $\Rightarrow$  Excess demand at the existing price  $\Rightarrow$  Rise in the price level  $\Rightarrow$  New equilibrium  $\Rightarrow$  Rise in price and fall in quantity demanded.

### Question 8

(a) The coefficient of price elasticity of demand for Good X is (-) 0.2. If there is a 5% increase in the price of the good, by what percentage will the quantity demanded for the good fall?

(b) Arrange the following coefficients of price elasticity of demand in ascending order: (-) 3.1, (-) 0.2, (-) 1.1

OR

How would the demand for a commodity be affected by a change in "tastes and preferences" of the consumers in favour of the commodity? Explain using a diagram.

### SOLUTION:

(a) Given:

Price Elasticity of demand for Good X ( $E_d$ ) = (-) 0.2

Increase in the price of the good = 5%

$$E_d = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in price}} = \frac{\% \text{ change in quantity demanded}}{5\%}$$
$$(-) 0.2 = \frac{\% \text{ change in quantity demanded}}{5\%}$$

% fall in quantity demanded = 1 percent

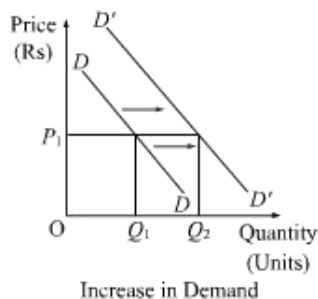
So, % fall in quantity demanded = 1 percent

(b) The following coefficients of price elasticity of demand are arranged in ascending order as follows:

(-) 0.2, (-) 1.1, (-) 3.1

Minus sign only shows the inverse relationship between the price and quantity demanded.

OR



In the figure, initially at price  $OP_1$ , consumer purchases  $OQ_1$  units of good. With the change in the taste and preferences of the consumers in favour of the commodity, the

demand curve shifts parallelly outwards to D'D'. At the new demand curve, the consumer purchases more units of the good (OQ<sub>2</sub>) but at the same price of OP<sub>1</sub>.

### Question 9

Which of the following statements are *true or false* ? Give valid reasons in support of your answer.

- (a) Average cost curve cuts Average variable cost curve, at the minimum level
- (b) Average product curve and Marginal product curves are 'U-shaped' curves.
- (c) Under all market conditions, Average revenue and Marginal revenue are equal to each other.
- (d) Total cost curve and Total variable cost curve are parallel to each other

### SOLUTION:

- (a) Average cost curve cuts Average variable cost curve, at the minimum level: This statement is false. MC curve cuts AVC curve at the minimum level.
- (b) Average product curve and Marginal product curves are 'U-shaped' curves: This statement is false. Average product curve and Marginal product curves are 'Inverse U-shaped' curves.
- (c) Under all market conditions, Average Revenue and Marginal revenue are equal to each other: This statement is false. In perfect competition only, Marginal Revenue is equal to Average Revenue.
- (d) Total cost curve and Total variable cost curve are parallel to each other: This statement is true. This is because the difference between total cost and total variable cost is a total fixed cost which remains fixed irrespective of the level of output. Hence, the distance between the total cost curve and the total variable cost curve remains the same throughout all the levels of output.

### Question 10

Explain the meaning of the following features of the Oligopoly Market :

- (a) Non-Price Competition
- (b) Few Sellers

### SOLUTION:

The features of the Oligopoly Market are explained as follows:

- (a) Non-Price Competition: Oligopoly firms tend to ignore price competition. They stress on the non-price competition. They adopt a policy of aggressive non-price competition. The products of the firms in oligopoly markets have the same price.
- (b) Few Sellers: There exists few but large and dominating firms. These firms account for the majority of market supply, thereby control the market price and quantity of the output.



### Question 11

(a) What is meant by increasing returns to a variable factor?

(b) Discuss briefly, any two reasons for the decreasing returns to a variables factor.

### SOLUTION:

(a) During this phase of increasing returns to a factor, TP increases at an increasing rate and is also accompanied by rising MP curve. The MP curve attains its maximum point corresponding to the point of inflexion of the TP curve. Throughout this stage, AP also continues to rise.

(b) The reasons for the decreasing returns to a variable factor are given as follows:

1. **Over utilisation of the fixed factors-** In the third stage of production, the variable factor is in excessive relative to the fixed factors. This leads to the over utilisation of the fixed factor, thereby negative returns to a factor sets-in.
2. **Negative Marginal Product-** Throughout this stage the TP curve is continuously falling, consequently, the additional product by the additional unit of labour becomes negative. This implies that in this stage of production, the cost of employing labour is substantially higher than its contribution to the total product.

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### Question 12

Explain the following conditions :

- (a) Movement along the same indifference curve.
- (b) Shift from a lower to a higher indifference curve.

OR

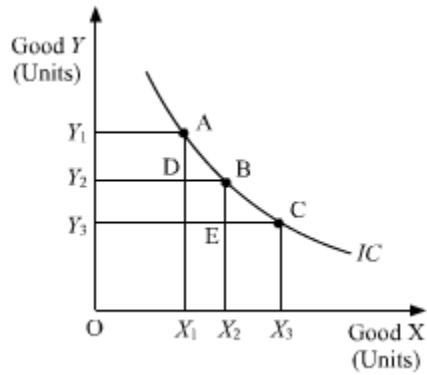
Explain the Law of Equi-Marginal Utility

### SOLUTION:

The following conditions are explained below:

(a) **Movement along the same indifference curve:** As we move down along the Indifference curve to the right, the slope of IC (MRS) decreases. This is because as the consumer consumes more and more of one good, the marginal utility of the good falls. On the other hand, the marginal utility of the good which is sacrificed rises. In other words, the consumer is willing to sacrifice less and less for each additional unit of the other good consumed. Thus, as we move down the IC, MRS diminishes.





In the above figure, IC is the Indifference Curve.

At point A,

$$MRS_{xy} = \frac{AD}{DB}$$

At point B,

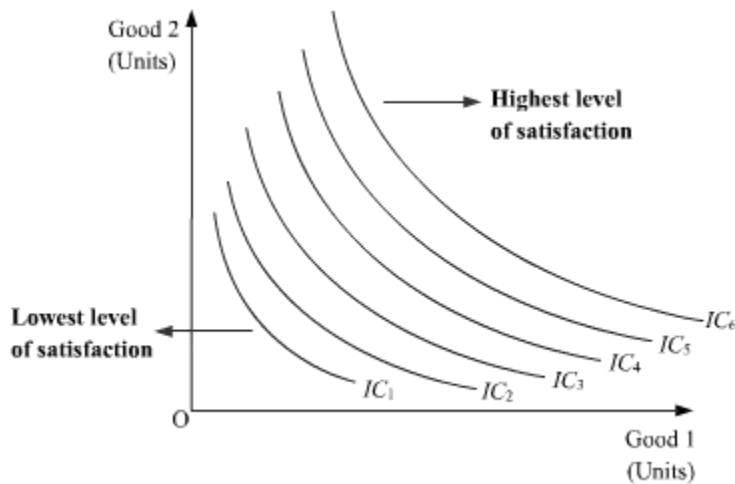
$$MRS_{xy} = \frac{BE}{EC}$$

$$\frac{BE}{EC} < \frac{AD}{DB}$$

MRS at B < MRS at A, so MRS has fallen.

(b) **Shift from a lower to a higher indifference curve:** As we shift from a lower to a higher indifference curve, the level of satisfaction derived by the consumer increases. In the given figure, as the consumer moves farther away from  $IC_1$  to higher indifference curves the level of satisfaction derived by the consumer increases.  $IC_6$  depicts the highest level of satisfaction. On the other hand,  $IC_1$  depicts the lowest level of satisfaction.

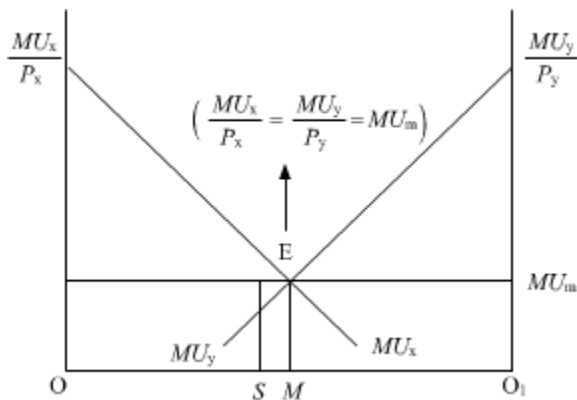
Higher IC denotes a higher level of satisfaction and lower IC denotes a lower level of satisfaction.



OR

Law of Equi-Marginal Utility states that a consumer allocates his expenditure on various commodities in such a manner that the utility derived from each additional unit of the rupee spent on each of the commodities is equal. Algebraically, this is represented as the following equality.

$$\frac{MU_x}{P_x} = \frac{MU_y}{P_y} = \dots = \frac{MU_m}{P_m} = MU_m$$



In the above figure,  $OO_1$  represents the total income of a consumer.  $MU_x$  and  $MU_y$  represent the Marginal Utility curves of commodity x and commodity y, respectively. Point E represents the point of consumer's equilibrium, where:

$$\frac{MU_x}{P_x} = \frac{MU_y}{P_y} = MU_m$$

At this point,  $OM$  amount of income is spent on commodity x and the remaining amount of income  $MO_1$  is spent on commodity y.

### Question 13

Primary deficit in a government budget will be zero, when \_\_\_\_\_ (Choose the correct alternative)

- (a) Revenue deficit is zero
- (b) Net interest payments are zero
- (c) Fiscal deficit is zero
- (d) Fiscal deficit is equal to interest payment

### SOLUTION:

Primary deficit in a government budget will be zero, when fiscal deficit is equal to interest payment.

Hence, the correct answer is option (D).

### Question 14

In order to encourage investment in the economy, the Central Bank may \_\_\_\_\_. (Choose the correct alternative)

- (a) Reduce Cash Reserve ratio
- (b) Increase Cash Reserve Ratio
- (c) Sell Government securities in open market
- (d) Increase Bank Rate

### SOLUTION:

In order to encourage investment in the economy, the Central Bank may reduce cash reserve ratio.

Hence, the correct answer is option (A).

### Question 15

What do you mean by a direct tax?

**OR**

What do you mean by an indirect tax?

### SOLUTION:

Direct Taxes are those taxes which are borne by the person on whom it is imposed. For example - Income tax, wealth tax, etc. The burden of such taxes cannot be shifted on to others.

**OR**

Indirect taxes are those taxes in which the burden of tax shifts from the payer to the bearer. For example, in case of sale tax, the seller is liable to pay the tax, however; the burden of bearing the tax falls on the customer. The seller collects the tax from the customer and pays it to the government.

### Question 16

Define 'money multiplier'.

### SOLUTION:

Money multiplier is defined as the ratio of stock of money (MS) to the stock of High Powered Money (H). In other words, it shows the number of times the total deposits have increased from the initial deposits of money.

Algebraically, money multiplier can be presented as:

$$M_m = \frac{M_s}{H}$$

where,

Ms represents the Stock of Money

H represents High Powered Money

M<sub>m</sub> represents Money Multiplier

### Question 17

Calculate change in final income, if Marginal Propensity to Consume (MPC) is 0.8 and change in initial investment is ₹ 1,000 crores.

### SOLUTION: Solution Not Available

### Question 18

State the impact of "Excess Demand" under the Keynesian theory on employment, in an economy.

OR

State the meaning of the following:

- (a) Ex-Ante Savings
- (b) Full Employment
- (c) Autonomous Consumption

### SOLUTION:

Excess demand refers to a situation where the aggregate demand for output is more than the full employment level of output.

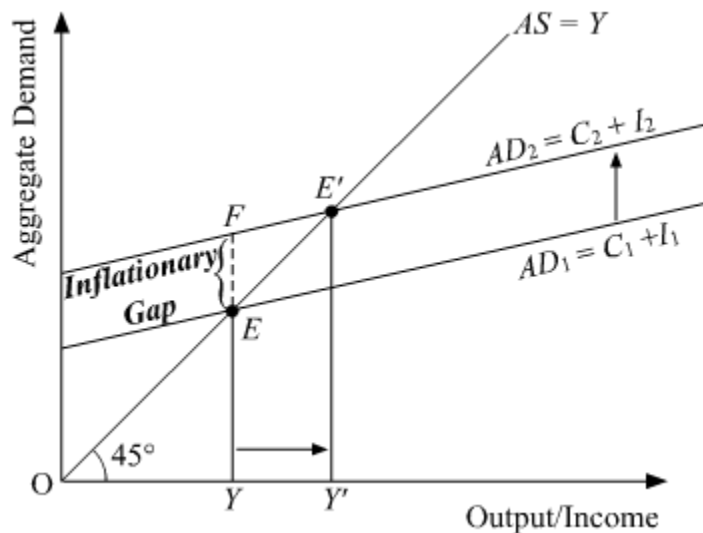
Due to the excess of aggregate demand, there exists a difference (or gap) between the actual level of aggregate demand and full employment level of demand. This difference is termed as inflationary gap. This gap measures the amount of surplus in the level of aggregate demand. Graphically, it is represented by the vertical distance between the actual level of aggregate demand (AD<sub>E</sub>) and the full employment level of output (AD<sub>F</sub>). In the figure, EY denotes the aggregate demand at the full employment level of output



and  $FY$  denotes the actual aggregate demand. The vertical distance between these two represents inflationary gap. That is,

$$FY - EY = FE \text{ (Inflationary Gap)}$$

Let us understand the situation of excess demand and the concept of the inflationary gap with the help of the following figure.



OR

(a) **Ex-Ante Savings:** It refers to the savings planned by the households at different levels of income in an economy.

(b) **Full Employment:** It is the equilibrium state of the labour market where the supply of labour is equal to demand for labour corresponding to a given wage rate.

(c) **Autonomous Consumption:** Autonomous Consumption Expenditure refers to that portion of consumption expenditure that is independent of the level of the disposable income. That is, irrespective of the level of disposable income, there will be always certain consumption expenditure. At zero level of disposable income, when income is zero, then also there will be some consumption expenditure, as the consumer need to sustain their life. The consumer at a zero level of income finances his/her consumption expenditure by the way of borrowings. This part of consumption expenditure is symbolically denoted by capital C ( $\bar{C}$ ).

### Question 19

Classify the following statements as revenue receipts or capital receipts. Give valid reasons in support of your answer.

(a) Financial help from a multinational corporation for victims in a flood affected area.

(b) Sale of shares of a Public Sector Undertaking (PSU) to a private company, Y Ltd.

(c) Dividends paid to the Government by the State Bank of India.

(d) Borrowings from International Monetary Fund (IMF).

### SOLUTION:

(a) Financial help from a multinational corporation for victims in a flood affected area is a revenue receipt. This is because it neither creates any liability nor it creates any reduction in the assets of the government.

(b) Sale of shares of a Public Sector Undertaking (PSU) to a private company, Y Ltd. is a capital receipt because it causes a reduction in the government assets.

(c) Dividends paid to the Government by the State Bank of India is a revenue receipt. This is because it neither creates any liability nor it creates any reduction in the assets of the government.

(d) Borrowings from the International Monetary Fund (IMF) is a capital receipt. This is because borrowings creates liability for the government.

### Question 20

"Higher Gross Domestic Product (GDP) means greater per capita availability of goods in the economy." Do you agree with the given statement? Give valid reason in support of your answer.

OR

Explain the meaning of Real Gross Domestic Product and Nominal Gross Domestic Product, using a numerical example.

### SOLUTION:

No, I do not agree with the given statement " Higher Gross Domestic Product (*GDP*) means greater per capita availability of goods in the economy." *GDP* as an index of welfare of an economy is imperfect and insufficient. The following observations can be made in this regard.

**1. Income Patterns-** It is possible that even with the rise in the Real *GDP*, the welfare of the people might not increase. The increase in the *GDP* may be a result of the increase in the income of a few individuals. On the other hand, the majority of people remain deprived of the benefits of the rise in the *GDP*. Hence, a rise in national income may lead to a false interpretation of social welfare.

**2. Composition of Output:** To know whether with the rise in Real *GDP* reflects a rise in the welfare of the economy, one needs to consider the composition of the output produced that has led to the rise in the level of *GDP*. For example, the production of goods such as guns, narcotic drugs and high-end luxurious goods increases the



monetary value of the production, but they do not add to the welfare of the majority of the population.

**3. Non-Monetary Exchanges:** *GDP* does not take into account those transactions that are not expressed in monetary terms. In less developed countries, there are various non-monetary exchanges, particularly in the rural areas and household sector. Consequently, such transactions remain outside the domain of *GDP* leading to underestimation of the value of *GDP*. Thus, *GDP* cannot be regarded as an index of economic welfare, as it ignores the household and the volunteer sectors.

**4. Level of Population:** If the level of population in the country is high, then even with a high *GDP*, the per-capita consumption will remain low. This implies that the level of people's welfare remains low. As Real *GDP* ignores the size of the population, so it fails to depict a true picture of economic welfare associated with a rise in *GDP*.

OR

**Real Gross Domestic Product:** Real Gross Domestic Product refers to the total market value of the output at the base year prices. The value of Real *GDP* can change only when the volume/quantity of output changes over time.

**Nominal Gross Domestic Product:** Nominal Gross Domestic Product refers to the total market value of the output at the current year prices. The value of Nominal *GDP* can change only with a change in the prices over time.

Consider a hypothetical economy that produces only a single commodity *x*. Suppose, in the year 2000, 100 units of the commodity *x* were produced and the current year price is Rs 10 and the base year price was Rs 5.

Commodity	Quantity A	Current Year Price B	Base Year Price C	Nominal <i>GDP</i>	Real <i>GDP</i>
				Quantity × Current Year Prices Quantity × Current Year Prices (A×B)	Quantity × Base Year Prices Quantity × Base Year Prices (A×C)
X	100	10	5	1,000	500

### Question 21

Distinguish between 'Qualitative and Quantitative tools' of credit control as may be used by a Central Bank.

### SOLUTION:

Basis	Quantitative Tools	Qualitative Tools
Definition	Quantitative instruments of monetary policy are the measures	Qualitative instruments of monetary policy, as against the quantitative

	that affect the overall supply of money/credit in the economy	instruments affect the flow and direction of credit to particular sectors in a positive or negative manner.
Tools	Bank rate, Open Market Operations, Cash Reserve Ratio, Statutory Liquidity Ratio are the quantitative tools used to control the credit	Margin Requirements, Moral Suasion, Selective Credit Control, Direct Action, Rationing of Credit are the qualitative tools used to control the credit

### Question 22

- (a) Define "Trade surplus" and "Trade Deficit".  
 (b) Discuss briefly the concept of managed floating system of foreign exchange rate determination.

### SOLUTION:

(a) **1. Trade Surplus:** Trade surplus refers to the situation in which the export of goods and services exceeds the import of goods and services of a country.  
 Exports of Goods and Services > Imports of Goods and Service  $\Rightarrow$  Trade Surplus

**2. Trade Deficit:** Trade deficit refers to the situation in which the export of goods and services falls short of the imports of goods and services of a country.  
 Exports of Goods and Services < Imports of Goods and Service  $\Rightarrow$  Trade Deficit

(b) Managed floating system of exchange rate combines the features of both the fixed exchange rate as well as the flexible exchange rate. On one hand, the foreign exchange market is allowed to operate freely and on the other hand, there is an official declaration of rules or guidelines for the intervention by the monetary authority. In other words, the managed floating exchange rate regime determines the exchange rate through the market forces with intervention of the monetary authority as and when required.

### Question 23

Discuss the adjustment mechanism in the following situations :

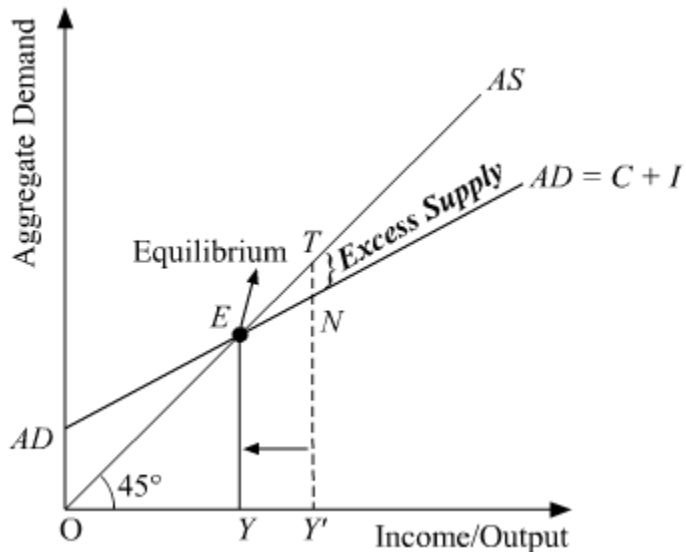
- (a) Aggregate demand is lesser than Aggregate Supply.  
 (b) Ex-Ante Investments are greater than Ex-Ante Savings.

### SOLUTION:

(a) **Aggregate demand is lesser than Aggregate Supply:** In case, if  $AS > AD$ , then it implies a situation, where the total supply of goods and services is more than the total demand for the goods and services. This implies a situation of deficit demand. Due to the deficit demand, the producers experience piling-up of stock of unsold goods, i.e.



inventory accumulation. This would force the producers to cut-back the production, thereby results in the reduced employment of factors of production. This leads to fall in the income and output. Finally, the income and output will fall sufficiently to equate the AD with AS, thus the equilibrium is restored back. This process of adjustment mechanism is explained below graphically.

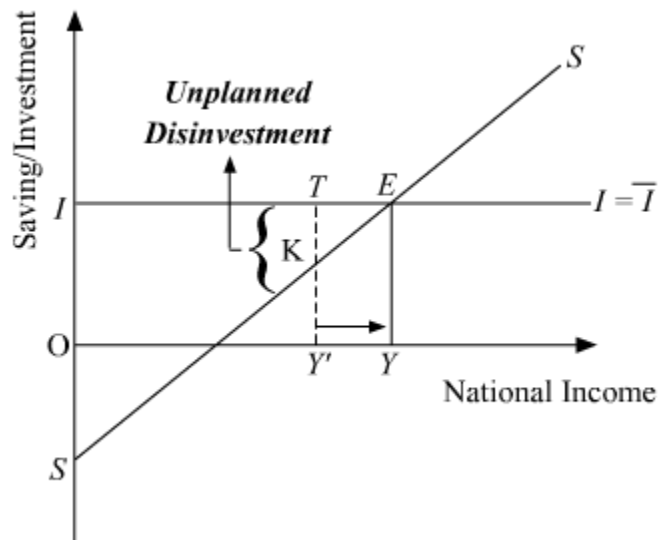


In the figure, AD and AS represent the aggregate demand and aggregate supply curves. Let us suppose that the equilibrium is operating at a situation, where aggregate supply exceeds aggregate demand, i.e.  $AS > AD$ .  $TY'$  represents the aggregate supply of output in the economy but the aggregate demand is only  $NY'$ . Hence, the economy is facing deficit demand or excess supply equivalent to  $TN$  (i.e.  $TY' - NY'$ ). Due to the excess supply, the producers experience stock of unsold inventories. Consequently, they cut-back their production and reduce employment. This results in fall in production and employment. The income, output and employment will continue to fall until all the excess supply is wiped-out. This happens at equilibrium point E,

where AD and AS intersect each other. At the equilibrium, OY represents the equilibrium level of output and income.

**(b) Ex-Ante Investments are greater than Ex-Ante Savings:** The situation when Ex-ante investment (I) exceeds Ex-Ante saving (S) i.e. when injections into the circular flow of income is greater than withdrawal from the income, then it implies that total consumption expenditure is greater than what is required to purchase the available supply of goods and services. In other words, we can understand this as low saving implies high consumption, which means that the required output is more than the planned output. Thus, there will be unplanned depletion of inventory (or unplanned dis-investment). In response to this, to increase the stock of output, the producers plan to expand production in the next period; thereby increase the employment of factors of production. The increased employment leads to rise in aggregate income in the economy, consequently, higher aggregate saving. The saving will continue to rise, until,

it becomes equal to the investment. At a point, where saving and investment are equal, equilibrium is achieved. This process of the adjustment mechanism is explained below graphically.



In the figure, S and I represent the Saving and Investment curves. Let us suppose that the equilibrium is facing a situation, where investment ( $TY'$ ) exceeds saving ( $KY'$ ). Consequently, the aggregate consumption expenditure is higher than what is required to buy all the goods and services. Therefore, there exists unplanned depletion of inventory or unplanned dis-investment by  $TK$  (i.e.  $TY' - KY'$ ) and the producers respond by increasing the production by hiring more factors of production. Consequently, the employment increases and the income of the factors (of the people) rise. Subsequently, the saving rises due to increased income. Hence, the saving will continue to rise, until, saving equates investment at point E. The economy achieves equilibrium at point E, with saving equal to investment and  $OY$  level of national income (or output).

#### Question 24

Define the following :

- Value Addition
- Gross Domestic Product
- Flow Variables
- Income from property and entrepreneurship

OR

Given the following data, find the values of "Gross Domestic Capital Formation" and "Operating Surplus".

S. No.	Particulars	Amount (₹ in crores)

(i)	National Income	22,100
(ii)	Wages and Salaries	12,000
(iii)	Private Final Consumption Expenditure	7,200
(iv)	Net Indirect Taxes	700
(v)	Gross Domestic Capital Formation	?
(vi)	Depreciation	500
(vii)	Government Final Consumption Expenditure	6,100
(viii)	Mixed Income of Self-Employed	4,800
(ix)	Operating Surplus	?
(x)	Net Exports	3,400
(xi)	Rent	1,200
(xii)	Net Factor Income From Abroad	(-) 150

### SOLUTION:

**(a) Value Addition:** Value addition on a good refers to the increase in the value of good at each successive stage of production. Algebraically, Value Addition is the difference between the total value of the output and the total value of the intermediate consumption.

**Value Addition = Total Value of Output – Total Value of Intermediate Consumption**

**(b) Gross Domestic Product:** Gross Domestic Product refers to the market value of all the final goods and services produced within the domestic country during an accounting year inclusive of depreciation. It is a gross concept as depreciation is not taken into account in its estimation. Also, GDP is limited to the domestic territory, thus, excludes NFIA.

**(c) Flow Variables:** A variable is said to be a flow variable if it is measured over (during) a period of time. Since such variables are measured over a time interval, it can be said that they have an element of time attached to them. For example, income earned during the month of March

**(d) Income from property and entrepreneurship:** Rent refers to the income earned from property and profit refers to the income generated from the entrepreneurship. Profit can be further categorised into the following three categories as dividends, corporate profit tax, undistributed profits.

OR

Given: National Income ( $NNP_{FC}$ ) = 22,100

$GDP_{MP} = NNP_{FC} + \text{Depreciation} + NIT - NFIA$

$GDP_{MP} = 22,100 + 500 - (-150)$

$GDP_{MP} = 23,450$

$GDP_{MP} = \text{Private Final Consumption Expenditure} + \text{Gross Domestic Capital Formation} + \text{Government Final Consumption Expenditure} + \text{Net Exports}$

$23,450 = 7,200 + \text{Gross Domestic Capital Formation} + 6,100 + 3,400$

**Gross Domestic Capital Formation = ₹ 6,750 crores**

$$NDP_{FC} = NNP_{FC} - NFIA$$

$$NDP_{FC} = 22,100 - (-150)$$

$$NDP_{FC} = 22,250$$

$$NDP_{FC} = \text{Wages and Salaries} + \text{Operating Surplus} + \text{Mixed Income of Self Employed}$$

$$22,250 = 12,000 + \text{Operating Surplus} + 4,800$$

$$\text{Operating Surplus} = \text{₹ } 5,450 \text{ crores}$$