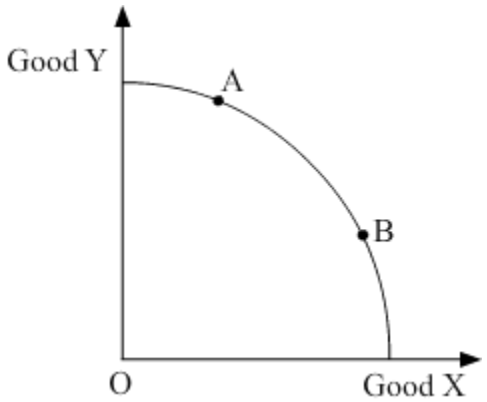
Economics 2019
Delhi - Set 1

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.

Question 1

In the given figure, the movement on the production possibility curve from point A to point B shows _____. (Choose the correct alternative)



(a) Growth of all the resources in the economy.
(b) Underutilisation of resources.
(c) Production of more units of Good X and less units of Good Y.
(d) Production of more units of Good Y and less units of Good X.

SOLUTION:

In the given figure, the movement on the production possibility curve from point A to point B shows production of more units of good X and less units of Good Y.
Hence, the correct answer is option (C).

Question 2

Average fixed cost curve ____. (Choose the correct alternative)
(a) is a straight line parallel to X-axis.
(b) is straight line parallel to Y-axis.
(c) falls, as more units are produced
(d) rises, as more units are produced

OR

Which of the following formula is correct for calculating marginal cost? (Choose the correct alternative)

(a) $MC_N = TFC_n – TFC_{N-1}$
(b) $MC_N = AC_N – AC_{N-1}$
(c) $MC_N = AVC_N – AVC_{n-1}$
(d) $MC_N = TC_n – TC_{N-1}$

SOLUTION:

Average fixed cost curve falls as more units are produced. Hence, the correct answer is option (c).

OR

The correct formula of calculating marginal cost is $MC_n = TC_n – TC_{n-1}$
Hence, the correct answer is option (D).

Question 3

The average product curve in the input-output plane, will be _____. (Choose the correct alternative)
(a) an 'S' shaped curve
(b) an inverse 'S' shaped curve
(c) a 'U' shaped curve
(d) an inverse 'U' shaped curve

SOLUTION:

The average product curve in the input-output plane, will be an inverse 'U' shaped curve.
Hence, the correct answer is option (D).

Question 4

If the market supply of a commodity X changes due to improvement in technology, the market supply curve will _____. (Fill up the blank)

OR

If the market supply of a commodity X changes due to rise in price of a factor input, the market supply curve will _____. (Fill up the blank)

SOLUTION:
If the market supply of commodity X changes due to improvement in technology, the market supply curve will shift rightwards.

OR

If the market supply of commodity X changes due to rise in price of factor input, the market supply curve will shift leftwards.

Question 5
Identify and discuss the nature of the following newspaper reports in terms of positive or normative economic analysis :

(i) "India jumped 23 points in the World Bank's ease of doing business index to 77th place, highest in 2 years." – *The Economic Times*
(ii) "Government should further liberalise the business rules." – *The Economic Times*

SOLUTION:
(i) The given statement is positive in nature. This is because positive Statements are the factual statements and describe what was, what is and what would be. These statements can be tested, proven or disproven. These statements do not involve any personal value judgment. Since, the given statement is verifiable in nature therefore it is positive statement.

(ii) The given statement is normative in nature. This is because normative Statements describe what should be or what ought to be. These statements cannot be tested and verified. Unlike positive statements, normative statements involve personal value judgments. Usually, these statements are debatable in nature. Since, the given statement about government is opinion based statement, therefore it is normative in nature.

Question 6
Distinguish between substitute goods and complementary goods, with examples.

OR

Distinguish between normal goods and inferior goods, with examples

SOLUTION:
The difference between substitute goods and complementary goods is given as follows:

Basis	Substitute Goods	Complementary Goods
Definition	Substitute goods refer to those goods that can be consumed in place of each other.	Complementary goods refer to those goods that are consumed together.
Relationship with Price	In case of substitute goods, if the price of one good increases, the consumer shifts his demand to the other (substitute) good i.e. rise in the price of one good results in a rise in the demand of the other good and vice-versa.	In case of complementary goods, if the price of one good increases then a consumer reduces his demand for the complementary good as well, i.e. a rise in the price of one good results in a fall in demand of the other good and vice-versa.
Examples	Tea and coffee, colgate and pepsodent, cello pens and reynolds pen	Tea and sugar, ink pen and ink, printer and paper

OR

Basis	Normal Goods	Inferior Goods
Definition	Normal goods are those goods whose demand increases with the increase in income and whose demand decreases with a fall in income	Inferior goods are those goods whose demand increases with a fall in income and whose demand falls decreases with a rise in income.
Income Effect	In case of normal goods, there is a positive income effect	In case of inferior goods, there is a negative income effect
Examples	Branded Clothes, Wheat, Milk	Coarse Cereals, Public Transportation - Bus, rail pass

Question 7

Discuss briefly, using a hypothetical schedule, the relation between marginal utility and total utility

OR

Discuss briefly, using a hypothetical schedule the concept of diminishing marginal rate of substitution.

SOLUTION:

Total Utility refers to the aggregate utility or summation of utility derived from the consumption of all the units of a commodity. Algebraically,

$TU = TU_1 + TU_2 + TU_3 + ...+ TU_n$

The given is the schedule which shows the relationship between total utility and marginal utility.

Number of Units Consumed of Commodity *X*	Total Utility (*TU*) (utils)	Marginal Utility (*MU*) $MU_n = TU_n - TU_{n-1}$ (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

1. As more and more units of the commodity are consumed, the Marginal Utility derived from the consumption of each additional unit of the commodity tends to fall. With the consumption of the successive units, the Marginal Utility becomes zero and consequently becomes negative. (As per the schedule, *MU* is zero at the consumption of 6^{th} unit and becomes negative at 7^{th} unit consumed).

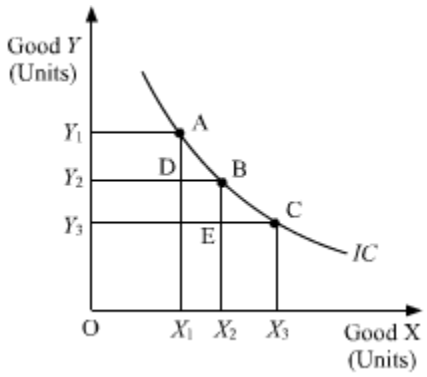
2. As long as *MU* derived from the consumption of additional units of the commodity is positive, *TU* continues to rise. (*MU* is positive till the consumption of the 5^{th} unit of the commodity.)

3. When *TU* becomes maximum (also known as Saturation Point), *MU* becomes zero. (*TU* is maximum at 160 utils and *MU* is zero at the 6^{th} unit.)

4. When *TU* starts falling, *MU* becomes negative.(For the consumption of 7^{th} unit, *MU* becomes negative and accordingly the *TU* falls from 160 utils to 150 utils).

OR

Marginal rate of substitution refers to the rate at which a consumer is willing to substitute one good for each additional unit of the other good.
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.



Good X	Good Y	MRS of X for Y
1	12	–
2	8	4:1
3	5	3:1
4	3	2:1
5	2	1:1

Question 8

Complete the following cost schedule :

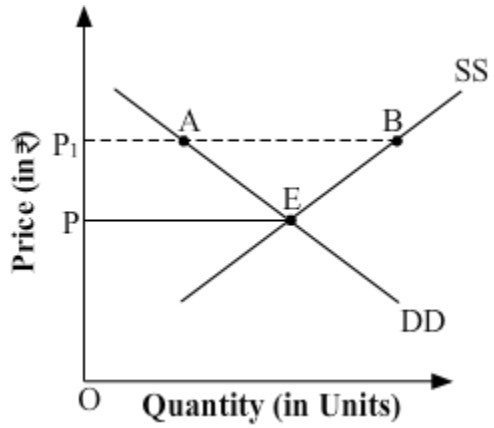
Quantity (in Units)	0	1	2	3	4
Total cost (in ₹)	200	.....	.....	.....	.....
Total variable cost (in ₹)	0	.....	180	.....	.....
Average variable cost (in ₹)	–	100	.....	80	.....

SOLUTION:

Quantity	Total Cost	Total Variable Cost	Average Variable Cost	Total Fixed Cost
0	200	0	–	**200**
1	**300**	**100**	100	**200**
2	**380**	180	**90**	**200**
3	**440**	**240**	80	**200**
4	490	**290**	**72.5**	**200**

Question 9

In the given diagram, OP is the market determined price and OP_1 is the price fixed by the government.



(a) Identify if the diagram represents, price ceiling or price flooring.

(b) Discuss the likely behaviour of the market in the given condition.

OR

Suppose the demand and supply equations of a commodity X in a perfectly competitive market are given by :

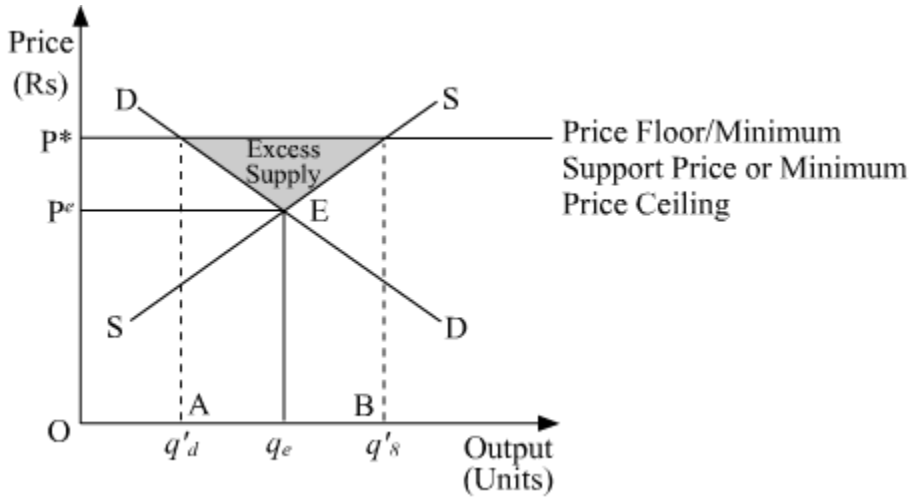
$Q_d = 1700 - 2P$

$Q_s = 1300 + 3P$

Calculate the value of equilibrium price and equilibrium quantity of the commodity X.

SOLUTION:

(a) The diagram represents price flooring.
(b) Price floor implies legislated or government fixed minimum price that should be charged by the seller. The minimum price is fixed above the equilibrium price. In the following figure, *DD* represents the market demand and *SS* represents the market supply. The point '*E*' represents the market equilibrium point, where the market demand and market supply intersect. The equilibrium price is OP^e and equilibrium output is Oq^e. Now, assume that the government imposes price floor at price OP_1. At this price, the quantity demanded is *q'd*, whereas, the quantity supplied is q's units. As quantity supplied (q′ *s*) is more than quantity demanded (*q′ d*), so there exists a situation of excess supply of *AB* units of a given good. (i.e. *q's – q'd*).



OR

At the point of equilibrium demand is equal to supply in a perfectly competitive market.
So, $Q_d = 1700 - 2P$
$Q_s = 1300 + 3P$
At point of equilibrium,
$Q_d = Q_s$
$= 1700 - 2P = 1300 + 3P$
$= 1700 - 1300 = 3P + 2P$
$= 400 = 5P$
$400/5 = P_e$
$80 = P_e$
$Q_e = 1700 - 2\ (80)$
$= 1700 - 160$
$= 1540$
The equilibrium price is equal to 80 and equilibrium quantity is equal to 1540 units of a commodity X.

Question 10

(a) Define price elasticity of demand.

(b) If the price of a commodity rises by 40% and its quantity demanded falls from150 units to 120 units, calculate coefficient of price elasticity of demand for the commodity.

SOLUTION:

It is the measure of the degree of responsiveness of the demand for a good to the changes in its price. It is defined as the percentage change in the demand for a good divided by the percentage change in its price.

$$ed = \frac{\text{Percentage change in demand for good}}{\text{Percentage change in price of that good}}$$

$$ed = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

Where $\Delta Q = Q_2 - Q_1$, change in demand
$\Delta P = P_2 - P_1$, change in price
P_1 = Initial price
Q_1 = Initial quantity
(b) Given : $Q_1 = 150$
$Q_2 = 120$
Price rises by 40%

$$\text{Elasticity of demand} = \frac{\text{Percentage change } in \text{ Quantity Demanded}}{\text{Percentage change } in \text{ Price}}$$

$$\text{Percentage change in Quantity demande} = \frac{Q_2 - Q_1}{Q_1} \times 100$$

$$= \frac{150 - 120}{150} \times 100 = 20\%$$

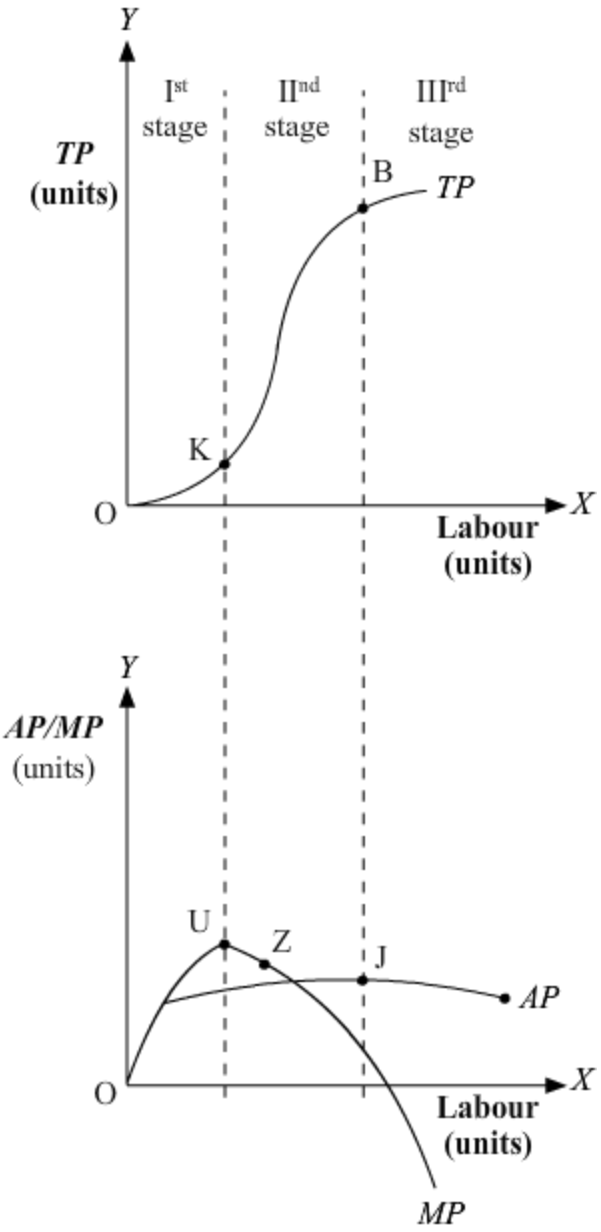
$$\text{Elasticity of demand} = \frac{\text{Percentage change } in \text{ Quantity Demanded}}{\text{Percentage change } in \text{ Price}} = \frac{20}{40} = 0.5$$

Question 11

What is meant by "diminishing returns to a factor" ? Discuss any two reasons for the operation of diminishing returns to a factor.

SOLUTION:

The diminishing returns to a factor depicts a particular phase under the law of variable proportion. Under this stage, the returns to a variable factor input or the marginal product is diminishing in nature, thereby giving the name ‘diminishing returns to a factor’. This can be better understood with the help of the given diagram.



Here, the Diminishing Returns to a Factor is the stage that starts from point K and continues till point B on the TP curve. During this stage, the TP increases but at a decreasing rate and attains its maximum point at B, where it remains constant. On the other hand (in the figure ii), the MP curve continues to fall and cuts AP from its maximum point Z, where MP equals AP. When TP attains its maximum point, corresponding to it, MP becomes zero. AP, in this stage initially rises, attains its maximum point at Z and thereafter starts falling.

Reasons for Decreasing Returns to a Factor

a. Fuller utilisation of fixed factor- In this stage, the fixed factor is utilised to its maximum level as more and more of labour inputs are employed.

b. Imperfect substitutability between labour and capital- The variable factors are imperfect substitute for the fixed factor. Therefore, the firm cannot substitute labour for

capital and as a result diminishing returns takes place.
c. Optimum Proportion/ Ideal Factor Ratio- The optimum proportion (or ideal factor ratio) is a fixed ratio in which the labour and capital inputs are employed. These factors will be the most efficient if they are employed as per the optimum proportion. If this proportion is disturbed (by combining more of labour inputs to the fixed units of capital), then the efficiency of the factors will fall, thereby leading to the diminishing returns to the factor.

Question 12
Elaborate three main features of monopoly form of market.

OR

Distinguish between perfect competition and monopolistic competition on the basis of following :

(a) Number of sellers
(b) Nature of product
(c) Selling cost

SOLUTION:
The features of a monopoly form of market are given as follows:

1. Single seller/firm/industry- In a monopoly market there exist only one individual seller or a group of individuals owning a single firm. As, there is only one firm in the industry, so the firm itself is regarded as the whole industry. The sole control over the production and supply of output rests on the monopolist's decision.

2. Restricted entry of new firms- The entry into the monopolist market is restricted. In other words, no new firm can enter the monopoly market. There may be various legal barriers such as, patent rights, cartel laws, exclusive rights, etc. to restrict the entry of the new firms.

3. A monopolist is a price maker- Since, a monopolist firm is the single firm in the market, therefore, it enjoys full control over the price and output decisions. The monopolist has the total freedom to fix the price level, which maximises his profit. Therefore, it can be said that a monopoly firm is a price-maker.

OR

The difference between perfect competition and monopolistic competition is given as follows:

Basis	Perfect Competition	Monopolistic Competition
Number of Sellers	Under Perfect Competition market, there exist a large number of sellers for a particular commodity.	Under Monopolistic Competition market, there exists a large number sellers for a commodity.

Nature of Product	Firms under Perfect Competition, sell homogeneous products that are perfect substitutes of each other.	Firms under this market structure produce similar yet differentiated products that are 'close' substitutes of each other.
Selling Cost	No selling cost is required	Selling cost is very significant

Question 13
Give any two examples of flow concept.

SOLUTION:

Two examples of flow concept are: capital formation, interest on capital.

Question 14
Define the term 'tax'.

SOLUTION:

A tax is a legally compulsory monetary contribution to the government by different economic units such as household, firms and other economic units. Taxes are imposed by the government on different activities, income, property, production, occupation, etc. The main motive of imposing taxes is to raise revenue and to incur various expenditures for enhancing welfare of the country.

Question 15
Suppose in a hypothetical economy, the income rises from ₹ 5,000 crores to ₹ 6,000 crores. As a result, the consumption expenditure rises from ₹ 4,000 crores to ₹ 4,600 crores. Marginal propensity to consume in such a case would be _____. (Choose the correct alternative)
(a) 0.8
(b) 0.4
(c) 0.2
(d) 0.6

SOLUTION:

Suppose in a hypothetical economy, the income rises from ₹ 5,000 crores to ₹ 6,000 crores. As a result, the consumption expenditure rises from ₹ 4,000 crores to ₹ 4,600 crores. Marginal propensity to consume in such a case would be _0.6_.
The correct answer is option (D).

Question 16
What is meant by primary deficit ?

OR

What is meant by fiscal deficit ?

SOLUTION:

Primary deficit refers to the difference between the fiscal deficit and the interest payments. Since, fiscal deficit reflects the borrowing requirements of the government, it can be said that the primary deficit refers to the difference between the government's borrowing requirements and its interest liabilities.
Primary Deficit = Fiscal Deficit – Interest Payments

OR

Fiscal deficit refers to the difference between the total budget expenditure and total budget receipts of the government, other than the borrowings and liabilities. That is,
Fiscal Deficit = Budget Expenditure – Budget Receipts (other than borrowing and liabilities)

Question 17

Define the problem of double counting in the computation of national income. State any two approaches to correct the problem of double counting.

OR

"Gross Domestic Product (GDP) does not give us a clear indication of economic welfare of a country. "Defend or refute the given statement with valid reason

SOLUTION:

Double counting refers to a situation where the value of a good is taken into account (counted) more than once. Such a problem occurs because for every producer, the commodity he sells is the final commodity. Thus, if every time the value of the good is taken into account, then it will lead to the estimation of the value of the product more than once.

For instance, in the example of production of cloth, for the cotton farmer cotton is the final product and he sells it for Rs 500. Thus, for him the cost of the final output is Rs 500. Similarly for the weaver, who sells weaved cotton for Rs 700, weaved cotton is the final product and cost of the final output is Rs 700. Next, the textile producer converts the weaved cotton into cloth and sells it to retailer for Rs 900, for him the cloth is the final product and cost of the final output is 900. The retailer then sells the cloth for Rs 1100.

The total value of the final output in the process is Rs 3,200 (i.e. Rs 500 + Rs 700 + Rs 900 + Rs 1,100). But, in this manner, the value of cotton is counted four times, value of thread three times and that of cloth twice.
In other words, there is an ***overestimation of the value of the goods produced***.
Efforts must be taken to reduce double counting by the following two approaches:
a. By considering only the value added by each production unit

b. By considering only the final goods and services (i.e. excluding intermediate consumption) in the estimation of the national income.

OR

GDP does not gives us a clear indication of economic welfare of the country. 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 false interpretation of the 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 need 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 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.

Question 18

If in an economy :

Change in initial Investments (ΔI) = ₹ 500 crores

Marginal Propensity to Save (MPS) = 0.2

Find the values of the following:

(a) Investment multiplier (k),

(b) Change in final income (ΔY)

SOLUTION:

(a) We know,

$k = \frac{1}{MPS} = \frac{1}{0.2} = 5$

So, investment multiplier is 5.

We also know,

$k = \frac{\Delta Y}{\Delta I}$

$5 = \frac{\Delta Y}{500}$

$\Delta Y = 2,500$

Question 19

How are capital receipts different from revenue receipts? Discuss briefly.

SOLUTION:

The difference between capital receipts and revenue receipts is given as follows:

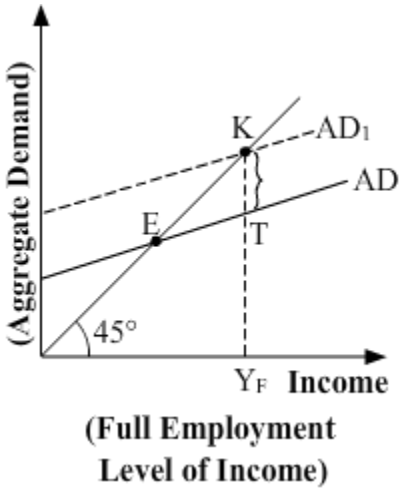
Basis	Capital Receipts	Revenue Receipts
Effect on government assets	Capital receipts refer to those receipts of the government, which cause a reduction in the government assets	Revenue receipts are those receipts of the government which does not cause any reduction in the assets of the government.
Effect on government liability	Capital receipts refer to those receipts of the government, which create a liability for the government	Revenue receipts those receipts of the givernment which does not create any liability for the government
Examples	These receipts comprisesn of recovery of loans, borrowings of governments and other liabilities of government	These receipts comprises of tax and non-tax receipts, duties and fines, interest and dividends receipts on government investments and assets

Question 20

State and discuss the components of Aggregate Demand in a two sector economy.

OR

In the given figure, what does the gap 'KT' represent? State any two fiscal measures to correct the situation.



SOLUTION:

The components of Aggregate Demand in a two sector economy are:

*1. Private consumption expenditure:*Private consumption expenditure refers to the total expenditure incurred by all the households in an economy on different types of final goods and services in order to satisfy their wants. Consumption depends on the level of the disposable income. It shares a positive relationship with the level of disposable income, that is, lower the level of disposable income lower will be the purchasing power and hence lower will be the consumption expenditure. The functional form that depicts the relationship between consumption expenditure and the level of disposable income is known as *consumption function*. There are two types of consumption expenditure- *Autonomous Consumption Expenditure* and *Induced Consumption Expenditure*. Autonomous Consumption Expenditure is independent of the level of disposable income, whereas, Induced Consumption Expenditure depends on the level of disposable income.

2. Private investment expenditure: Private investment expenditure refers to the planned (ex-ante) total expenditure incurred by all the private investors on creation of capital goods such as, expenditure incurred on new machinery, tools, buildings, raw materials, etc. This expenditure by all the private investors on the capital goods add to the total stock of capital thereby increases the overall productive capacity of the economy. Investment depends on the rate of interest and level of income. Broadly, investment can be categorised in two types- *Autonomous Investment Expenditure* and *Induced Investment Expenditure*. The Autonomous Investment Expenditure is independent of the rate of interest and level of income, whereas, the Induced Investment Expenditure depends on the rate of interest and level of income.

OR

The gap 'KT' represents the inflationary gap. This is the situation of excess demand. Fiscal policy refers the policy that is undertaken by the government to influence the economy through the process of its expenditure and taxation. The fiscal measures to correct the excess demand are given as follows:

1. Government Expenditure: The Government of a country incurs various types of expenditure to enhance the welfare of the people and also to facilitate economic growth and development. **In case of excess demand**, the government cuts down its expenditures in form of disinvestment. This lowers the level of economic activity, which in turn, reduces the level of employment, thereby reducing the income level. This subsequently reduces the aggregate demand, thus, the situation of excess demand gets corrected.

2. ***Public Borrowings***

Through the measure of public borrowings, the government affects the liquidity (cash balances) held by the public. It is because of the excess liquidity, the people demands more and vice-versa. Therefore, government affects the liquidity balances with the help of public borrowings.

In case of excess demand, the government raises the public borrowings, which reduces the liquidity balances with the public. A reduction in the liquidity lowers the purchasing power of the people, which in turn, lowers the aggregate demand.

Question 21

Discuss the working of the adjustment mechanism in the following situations:

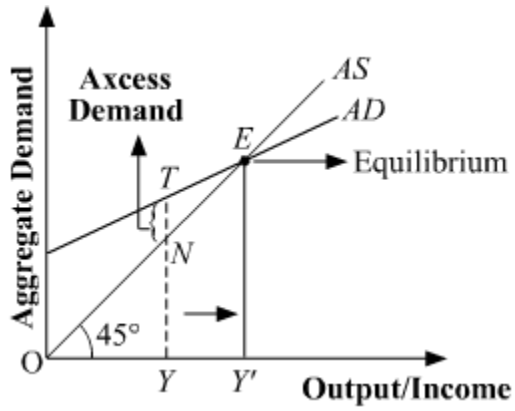
(a) Aggregate demand is greater than Aggregate supply.

(b) Ex Ante Investments are lesser than Ex Ante Savings.

SOLUTION:

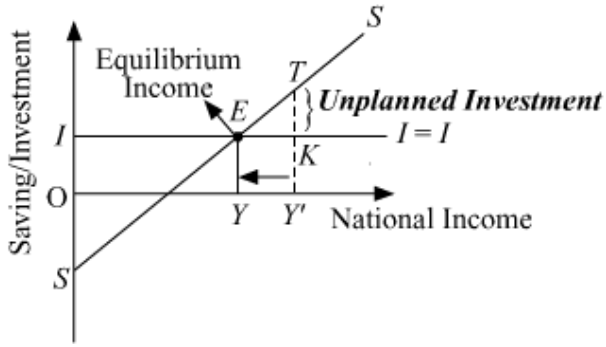
(a) When Aggregate Demand is greater than Aggregate Supply

In case, if $AD > AS$, then it implies a situation, where the total demand for goods and services is more than the total supply of the goods and services. This implies a situation of excess demand. Due to the excess demand, the producers draw down their inventory and increase production. The increase in production requires hiring more factors of production, thereby increases employment level and income. Finally, the income will rise 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 demand exceeds aggregate supply, i.e. *AD* > *AS*. *TY* ' represents the aggregate demand of output by the economy but the aggregate supply is only of *NY*´. Hence, the economy is facing excess demand equivalent to *TN* (i.e. *TY* ' **–** *NY* ´). Due to the excess demand, the producers draw down their inventories and hire more factors of production. This results in increase in the production and employment. The income, output and employment will continue to rise, until all the excess demand 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.

(b) When Ex Ante Investments are lesser than Ex Ante Savings.
The situation when *S* exceeds *I* i.e. when withdrawal from the income is greater than injections into the circular flow of income, then it implies that total consumption expenditure is less than what is required to purchase the available supply of goods and services. In other words, we can understand this as high saving implies low consumption, which means that the required output is less than the planned output. Thus, a portion of the supply remains unsold, which leads to unplanned inventory accumulation. In response to this situation, for clearing this unsold stock, the producers plan a cut in the production in the next period. Therefore reduce the employment of labourers. The reduced employment leads to fall in aggregate income in the economy, consequently, lesser aggregate saving. The saving will continue to fall, until, it becomes equal to the investment. At point, where saving and investment are equal, equilibrium is achieved. This process of 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 saving (*TY´*) exceeds investment (*KY´*). Consequently, the aggregate consumption expenditure is lower than what is required to buy all the goods and services. Therefore, there exists unplanned inventory accumulation of unsold stock equal to *TK* (i.e. *TY´* **–** *KY´*) and the producers respond by reducing the production by reducing employment. Due to reduced employment, the income of the factors of production (of the people) falls. Subsequently, the saving will fall due to reduced income. Hence, the saving will continue to fall, 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 22

(a) Define "Trade surplus". How is it different from "Current account surplus" ?
(b) "Indian Rupee (₹) plunged to all time low of ₹ 74.48 against the US Dollar ($)".

–The Economic Times

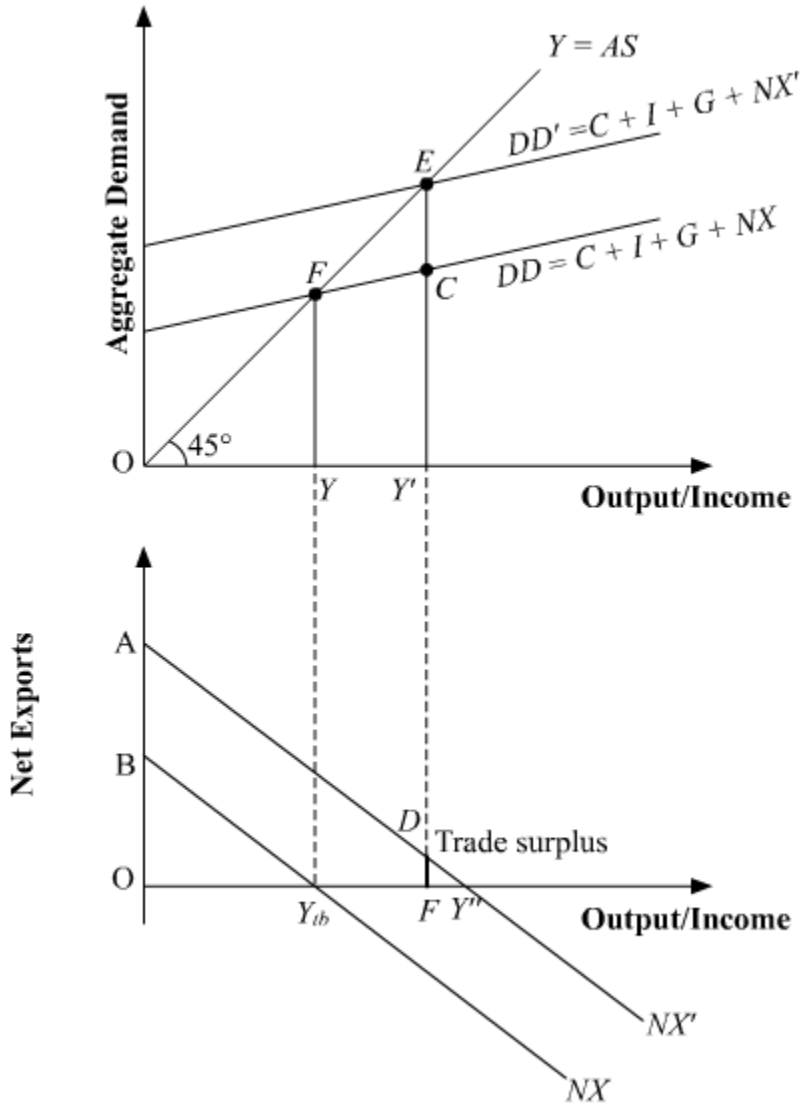
In the light of the above report, discuss the impact of the situation on Indian Imports.

SOLUTION:

(a) Trade surplus refers to the situation when exports of goods and services exceeds the import of goods and services.
Exports of Goods and Services > Imports of Goods and Service ⇒ Current Account Surplus
Trade surplus is different from "Current Account Surplus" . This is because current account is the account which maintains the records of imports and exports of goods and services as well as the record of unilateral transfers.
Current Account Balance = Balance of Visible Trade + Balance of Invisible Trade + Balance of Unilateral Transfers

(b) Indian Rupee is depreciating against the US Dollar since it is given that " Indian Rupee (₹) plunged to all time low of ₹ 74.48 against the US Dollar ($)". A high exchange rate makes the imports more expensive. Consequently, a rise in the exchange rate implies a reduction in the demand for imports and *vice-versa*.
When imports falls, net exports (Exports - Imports) of a country rises. The given figure explains this process as follows:
Suppose the initial equilibrium income is given by *Ye* that corresponds to a trade balance equal to *Ytb*. With the rise in the net export demand, the aggregate demand curve *DD* shifts upwards to *DD'* such that the new equilibrium is established at point *E'* and the equilibrium income rises to *Y'*.
In the lower panel due to the fall in the imports, the net export rises and the net export curve shifts upwards from *NX* to *NX'*. At the new level of income, the net exports is represented by the vertical distance *AE'* which are necessarily positive (because the total demand curve *DD'* lies above the aggregate demand curve *AD*). Thus, with a fall in

the imports, there is a trade surplus. This trade surplus is represented in the lower panel by the vertical length *DF.*



Question 23

(a) State any two components of M_1 measure of money supply.

(b) Elaborate any two instruments of Credit Control, as exercised by the Reserve Bank of India.

OR

Define Credit Multiplier. What role does it play in determining the credit creation power of the banking system ? Use a numerical illustration to explain.

SOLUTION:

(a) The following are the components of M_1:

i. **Currency component** - It includes currency notes and coins (collectively called the currency component of money supply) that are issued by the monetary authority of a

country. In India, the RBI issues currency notes of various denominations such as Rs 2, Rs 5, Rs 100, Rs 500 and Rs 1000 and the Government of India issues currency coins and notes of denominations less than and equal to Re 1.

ii. **Deposit component –** It includes the savings or the current account deposits held by the public in various commercial banks of a country. Deposits held by the public can be classified into two major categories- Term Deposits and Demand Deposits.

(b) The following are the instruments of Credit Control by RBI:
1. ***Bank Rate****:* Bank rate refers to the rate at which the central bank provides loans to the commercial banks. This instrument is a key at the hands of RBI to control the money supply. Changes in the bank rate change the cost of borrowings, thereby affect the money supply. This is explained by the following mechanism.
An increase in the bank rate increases the cost of borrowing for the commercial banks from the central bank. The commercial banks in turn, increase the lending rate for their customers. However, this increase in the lending rate reduces the borrowing capacity of the public, thereby, discourages loans and credit. This depresses the multiplier process and thus, decreases the value of money multiplier. Hence, the total money supply decreases. A decrease in the bank rate will have the reverse effect and will increase the money supply.

2. ***Cash reserve ratio (CRR)***- It refers to the minimum proportion of the total deposits that the commercial banks has to maintain with the central bank in form of reserves. An increase in the *CRR,*would mean that banks would be required to keep a greater portion in form of deposits with the central bank. This implies that the commercial banks are left with lesser amount of funds to lend out. Hence, the lending capacity of the banks reduces, leading to fall in the money supply. On the contrary, a fall in CRR will lead to an increase in the money supply.

To ***summarise***,
CRR ↑ ⇒ ***Deposits with the banks*** ↓⇒ ***cash reserves of the bank*** ↓ ⇒ ***Lending capacity of banks*** ↓ ⇒ ***Money supply*** ↓
CRR ↓ ⇒ ***Deposits with the banks*** ↑ ⇒ ***cash reserves of the bank*** ↑ ⇒ ***Lending capacity of banks*** ↑ ⇒ ***Money supply*** ↑

OR

The Credit multiplier is equal to 1/CRR and depicts the number of times the credit is multiplied, with a given amount of initial deposit. The process of credit creation can be explained by taking an example of a bank XYZ. A depositor deposits Rs.10,000 in his savings account, which will become the demand deposit of the bank. Based on the assumption that not all customers will turn up at the same day to withdraw their deposits, bank maintains a minimum cash reserve of 10 % of the demand deposits, i.e. Rs.1000. It lends the remaining amount of Rs.9000 in the form of credit to other customers. This further creates deposits for the bank XYZ of Rs 9000. Now in the next round, out of Rs 9000, Rs 900 goes as cash reserves and the remaining Rs 8100 are extended as loans. And so the process will continue. Such a process will increase the

money supply in the economy by the amount (times) of credit multiplier. The credit multiplier is given by:

Credit multiplier = 1/CRR = 1/10% = 10

Therefore, the money supply will increase by 10 times and the total credit created in the economy will be equal to around Rs 1,00,000.

The same process can be supported by the following table:

Rounds	Deposits Received *A*	Loans Extended *B*	Cash Reserves
Initial	10,000	9000	1000
Round I	9000	8100	900
Round II	8100	7290	810
Round III	-	-	-
Round IV	-	-	-
.	-	-	-
.	-	-	-
Round *N*	-	-	-
Total	**1,00,000**	**90,000**	**10,000**

Question 24

Given the following data, find the missing value of 'Government Final Consumption Expenditure' and 'Mixed Income of Self Employed'.

S.No.	Particulars	Amount (In ₹ crores)
(i)	National Income	71,000
(ii)	Gross Domestic Capital Formation	10,000
(iii)	Government Final Consumption Expenditure	?
(iv)	Mixed Income of Self Employed	?
(v)	Net Factor Income from Abroad	1,000
(vi)	Net Indirect Taxes	2,000
(vii)	Profits	1,200
(viii)	Wages & Salaries	15,000
(ix)	Net Exports	5,000
(x)	Private Final Consumption Expenditure	40,000
(xi)	Consumption of Fixed Capital	3,000
(xii)	Operating Surplus	30,000