

केन्द्रीय नायनिक शिक्षा बोर्ड, दिल्ली
नियम स्वृति स्टार्टिकेट परीक्षा (कक्षा चारहवी)
परीक्षार्थी प्रमेश—पत्र के अनुसार भरे

विषय Subject : ECONOMICS
विषय कोड Subject Code : 030
परीक्षा का दिन एवं तिथि
Day & Date of the Examination : Thursday, 21/3/2016
उत्तर देने का माध्यम
Medium of answering the paper : English

प्रश्न पत्र के ऊपर लिखे
क्रमांक No. as written on
the top of the question paper

Code Number
58/1

Set Number
● ② ③ ④

अलिंगित उत्तर मुद्रितका (प्र०) की संख्या
No. of supplementary answer -book(s) used

1

विषयालय वर्गित : हो / नहीं
Person with Disabilities : Yes / No

दिली शाश्वतेक सामाजिक सेवाओं के लिए चारों वर्गों में का विशेषज्ञान।
If physically challenged, tick the categories

B D H S C A

B = दृष्टिप्रभावी, D = वास्तविक, H = शाश्वतेक लिपि संविकल्प, S = व्यावधान
C = विकल्पीकरण, A = औटिसिस्टिक
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पता लिखने के लिए उपलब्ध कराया गया : हो / नहीं
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गढ़े उपलब्ध हो सकते हैं ताएँ नहीं
सॉफ्टवेयर का नाम : —
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एक नामे के एक अंक लिखें। नाम में अलग अलग के बीच एक अंक लिखें तो। यह वर्णाली का
नाम 24 अक्षरों से बहिर्भूत है, तो अलग अलग के बीच एक अंक लिखें।

Each letter be written in one box and one box be left blank between each part of the
name. In case Candidate's Name exceeds 24 letters, write first 24 letters.

कार्यालय उपयोग के लिए
Space for office use
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Section A:

- The difference between Average Variable Cost (AVC) and Average Total Cost (ATC) is the Average Fixed Cost (AFC)
Since Total fixed cost = 0

$$\Rightarrow AFC = TFC = 0$$

Φ

Average Fixed Cost is 0, the AVC = ATC

Hence, the Average Variable cost is equal to Average Total Cost.

Equal to Average Revenue

- 'Change in demand' takes place when some determinant of demand of a commodity, other than its own price changes.
for example, income of the consumers, price of related goods etc.
It results in shift of the demand curve.

4. (i) Both monopolistic competition and oligopoly

S. as perfect competition

6. The consumer is in equilibrium when:-

- (i) ~~Utility~~ $U_{1n} = U_{2n} \Rightarrow$ When of last sacrifice
 $\frac{U_{1n}}{P_1} = \frac{U_{2n}}{P_2}$ when on both commodities

(ii) Law of Diminishing Marginal Utility is operational.

In the given case,

$$\frac{U_{1n}}{P_1} = \frac{3}{4}$$

$$\text{whereas } \frac{U_{2n}}{P_2} = \frac{4}{3} > 1$$

$$\therefore \frac{U_{1n}}{P_1} < \frac{U_{2n}}{P_2}$$

or

- * The consumer is not in equilibrium as the Marginal utility of the last rupee spent on good Y is more than Marginal Utility of last rupee spent on good X.

Therefore the consumer will transfer funds from good X to good Y and increase the consumption of good Y.

- * As consumption of good Y increases, Marginal (due to law of diminishing marginal utility)

$$\text{This continues till } \frac{M.U_X}{P_X} = \frac{M.U_Y}{P_Y}$$

Conclusion :- The consumer will increase his consumption of good Y till the utility derived from the last rupee spent on both commodities is the same and he attains equilibrium.

6

7. Price Elasticity of demand = % change in Quantity Demanded
 (ϵ_p) % change in Price

$$(i) \quad \epsilon_p = \frac{\% \text{ in } Q_D}{10}$$

$$0 = \frac{1.0 \text{ in } Q_D}{10}$$

$$\Rightarrow 1.0 \text{ in } Q_D = 0.1$$

Hence, the demand for the commodity ~~with~~ not change at all.

$$(ii) \quad \epsilon_p = \frac{\% \text{ in } Q_D}{10}$$

$$-1.1 = \frac{1.0 \text{ in } Q_D}{10}$$

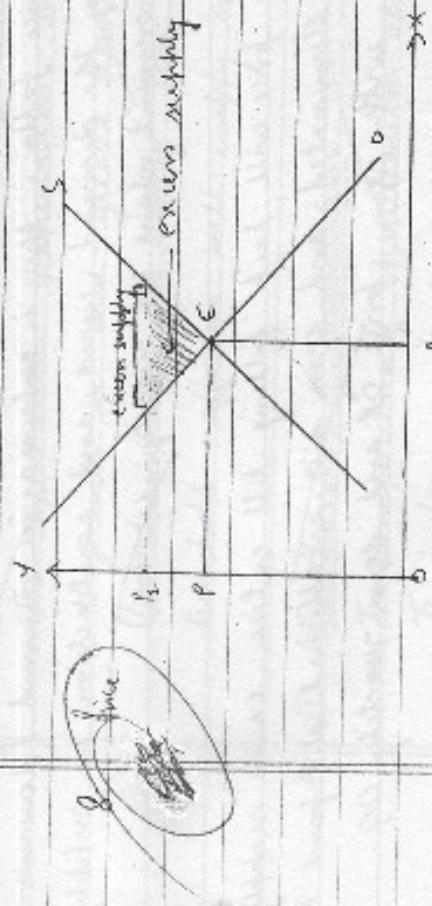
$$\Leftrightarrow 10\% = -1.1 \text{ or in } Q_D.$$

the quantity demanded of the commodity will fall by
 10% if the price rises by 10%.
 (unitary elastic demand)

$$(C) \frac{172}{10} = 17 \text{ units of } Q$$

$$\Leftrightarrow 20 = 17 \text{ units of } Q$$

The quantity demanded will fall by 20% if the price rises by 10%.



In the above diagram, P denotes price,
 Q denotes quantity demanded / supplied and
 D axis denotes the price.

The equilibrium point is E , with eqm. price of and eqm. quantity of Q_2 .

In short run, ~~providing market~~ price is O_1 , above the ~~equilibrium~~ price.

At this price, the quantity supplied is more than the quantity demanded. This will create ~~a situation of excess~~ supply.

This will result in competition among sellers, leading to a fall in price.

As price falls, there is expansion in demand (downward movement along the demand curve), and contraction in supply (downward movement along the supply curve).

The price will keep falling till entire excess supply is eliminated and ~~equilibrium~~ is established at point E, with ~~equilibrium~~ price O_2 and ~~equilibrium~~ quantity O_3 .

S. J. M.

Demand is the desire to buy a commodity, backed by ability and willingness to pay, at a particular price during a given period of time. It is a flow variable.

Apart from factors affecting individual demand, there are factors that additionally affect market demand :-

(i) Number of households in the market.

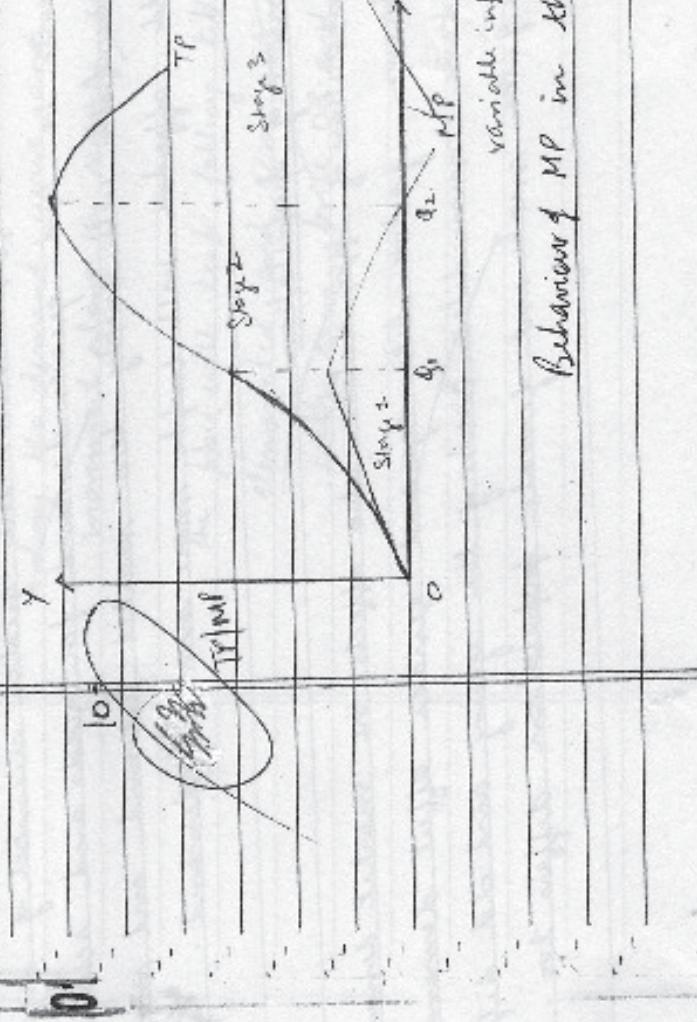
The more is the population, the greater number of households there will be and greater demand for goods and services. New households will largely less market demand and more household affluence will largely more market demand.

to (ii) Composition of population

The composition of population also affects the market demand. This is because factors like age and gender affect demand for certain commodities. Needs of the young and old differ. Needs of the male and female population differ too.

iii) Distribution of Income

If the income is distributed in the favour of rich, comfort and luxuries will be more in demand. Whereas, if the income is distributed in the favour of the poor, necessities will have higher market demand. Generally, market demand is higher if the income distribution is even, rather than when it is uneven.



Behaviour of MP in the short run production function.

Marginal product (MP) is the additional output produced when an additional unit of variable input is employed.

Behaviour of MP :-

Stage 1 (i) Initially, MP rises. (TP increases at an increasing rate)
In the above diagram, this lasts till OQ₁ level of input.

Stage 2 (ii) MP starts falling, but is still positive (TP increases at a decreasing rate).

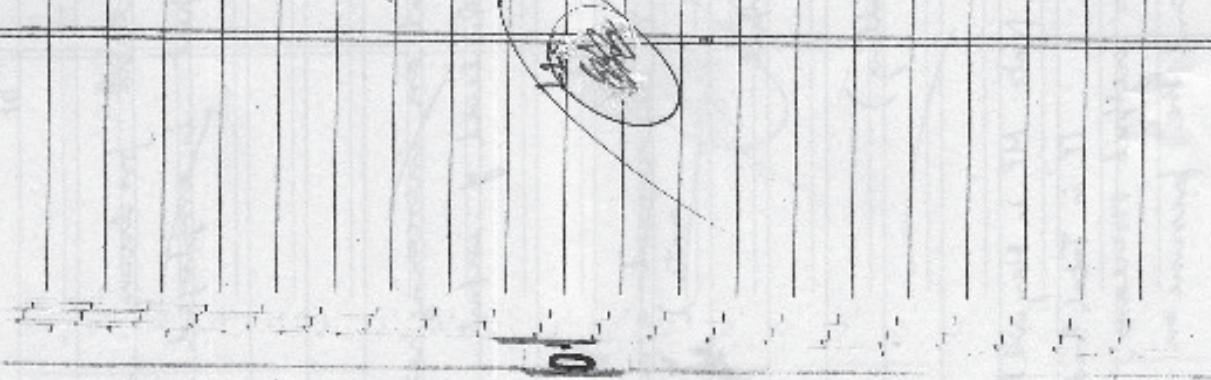
This happens between OQ₁ and OQ₂ level of input.
When MP becomes zero, TP is maximum.

Stage 3 (iii) MP becomes negative (TP starts falling)
This happens after OQ₂ level of input.

Note: MP is Marginal Product

TP is Total Product.

This is because of laws of variable proportions. As output increases, the productivity of variable input will fall, and the pressure on fixed



~~Note~~ Price elasticity of supply = $\frac{1}{\% \text{ change in quantity supplied}} \cdot \frac{1}{\% \text{ change in price}}$

$$E_s = \frac{75}{\frac{31 \times 100}{24}}$$

$$E_s = \frac{75}{25}$$

$$\underline{E_s = 3}$$

Hence price elasticity of supply is $E_s = 3$. Therefore,
Supply is elastic

12. The Economic Problem is essentially the problem of making a choice.

We have limited resources, having alternative uses.
However, we have indefinite wants, differing in urgency.

How to employ these limited resources, having alternative uses to satisfy our wants is the central problem of economics.

It arises due to scarcity of resources.
Scarcity is a relative term. It means limited supply of a commodity in relation to its demand. It is a situation where the demand of a commodity exceeds its supply even at zero price.

To summarise the economic problem due to:

- (i) limited resources (Scarcity of resources)
- (ii) human have alternative uses
- (iii) Uninited wants

→ We need to maximise the resources, that is, make the best possible use of the resources, and we have judiciously.

Q1

The central problems are:

- (i) What to produce and in what quantities?
- (ii) How to produce?
- (iii) For whom to produce?

The problem of 'for whom to produce' is the problem of distribution.

The problem of 'What to produce' is the problem of production of various factors of production.

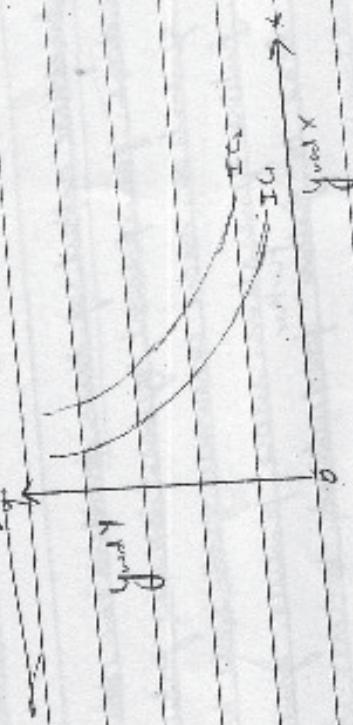
The factors act as custodians and their share in goods and services produced will depend on their purchasing power which will depend on the income they get.

Hence, who will consume what goods and services will depend on how the National Income is distributed in the economy.

The distribution should be such that the greatest needs of people should be met to the maximum extent possible.

Another aspect of this problem is whether production should be done for present generation or future generations. If present generation, more consumer goods will be produced, whereas for future generations, more producer goods will be produced, as they lead to future production.

13. Indifference curve is the graphical representation of different combinations of two goods that give the consumer same level of satisfactions.



Properties of IC (Indifference curve)

- (i) Indifference curve is downward sloping - poor left to right.
- (ii) Indifference curve shows units of one good - with right - This is because some units of additional unit have to be sacrificed - be consumer are level of another good 2 in order to keep the level of satisfaction same.

(2) Indifference curve is convex to the origin

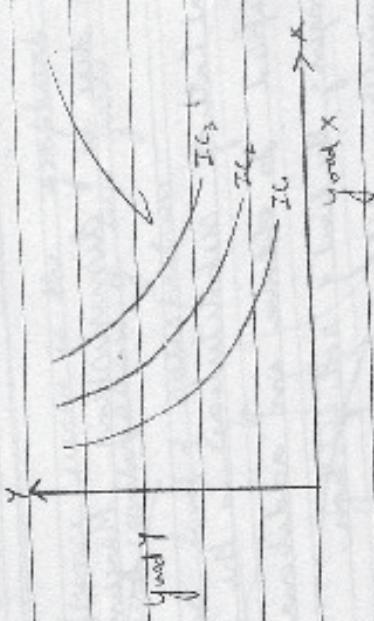
This is due to diminishing Marginal Rate of Substitution (M.R.S.)

Marginal rate of substitution is the amount of one good sacrificed to obtain an additional unit of other good without changing the level of satisfaction.

Diminishing M.R.S. implies that the consumer is willing to sacrifice less and less of one good for every successive increase in consumption of other good.

This is because the consumer's capacity to sacrifice a good when it is plentiful and less when it is scarce.

(3) Higher I_C implies higher level of satisfaction.



I_C_3 represents a higher level of satisfaction than I_C_2 .
and I_C_2 represents a higher level of satisfaction than I_C_1 .

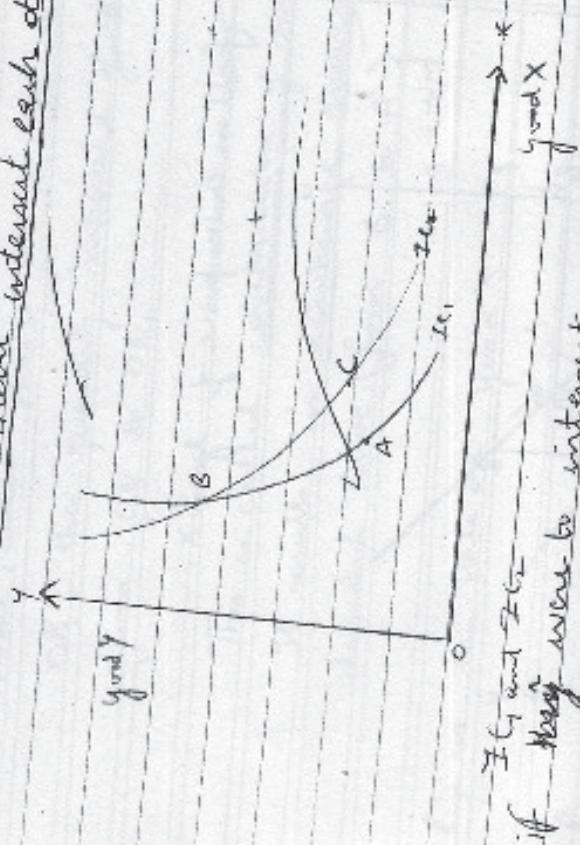
This is because a higher I_C would show combinations which will have either more of both goods or more of one good and some of other good.
Since preferences are monotonic, more goods will always be preferred.
Hence, higher I_C would imply higher level of satisfaction.

(7)

Indifference Curves never intersect each other.

19

(Hypothetical diagram)



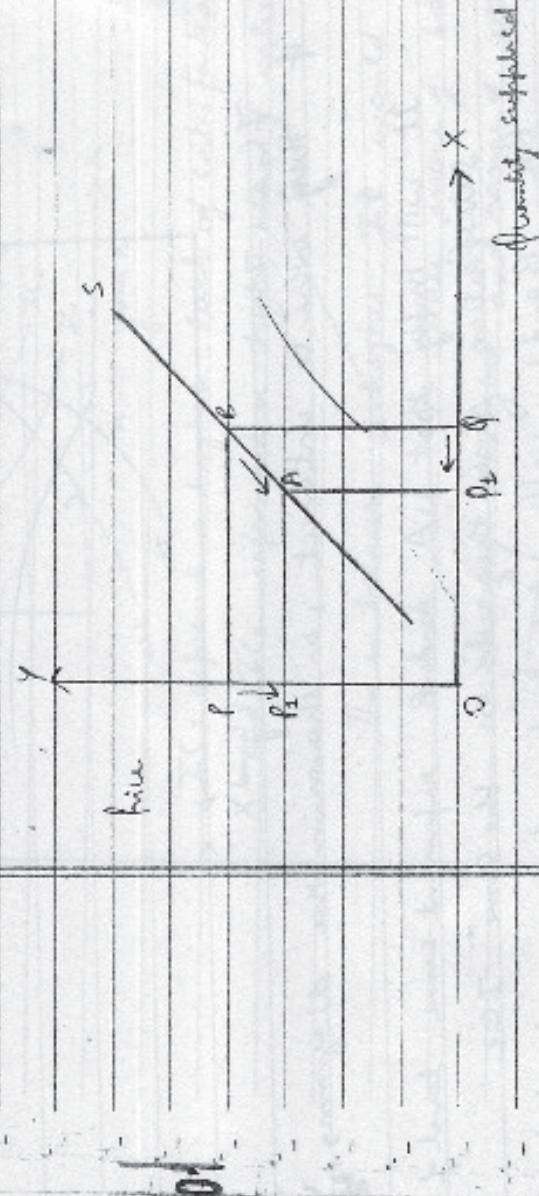
If they were to intersect, as shown in the diagram,

It will imply that A and B represent some level of satisfaction, since they lie on the same IC_1 . But B and C will still represent some level of satisfaction, as they lie on IC_2 . This will mean A and C show same level of satisfaction. However, C lies on higher IC_2 , therefore it will show higher level of satisfaction. Hence two IC_s can never intersect each other.

This is a contradiction.

Q.

(a) fall in own price of good X.

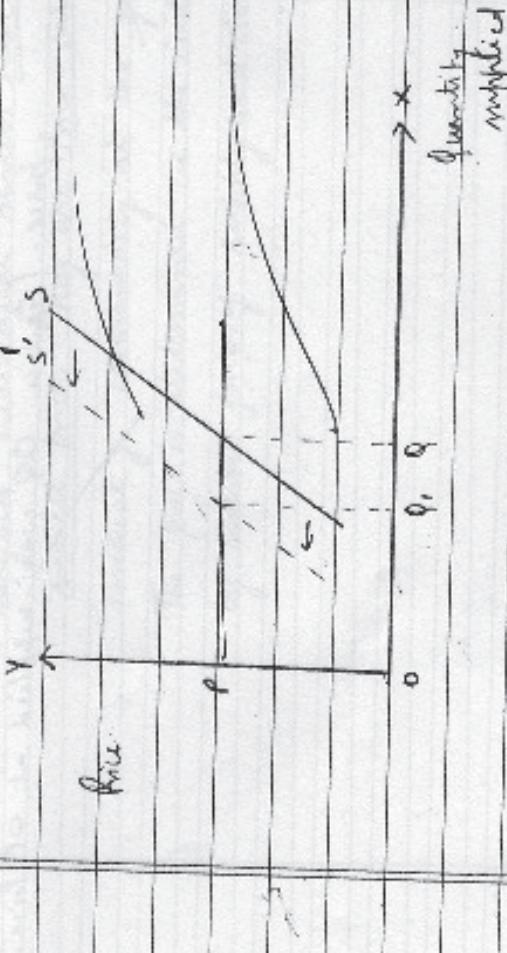


law of supply states that, all other things constant,
the quantity supplied of a commodity varies directly
with its price.

Hence when there is fall in its own price, say from OQ_1 to OQ_2 , the quantity supplied of commodity will fall from OQ_1 to OQ_2 .

This is called contraction of supply.
It results in downward movement along the same demand curve. (from B to A)

(b) Linear tax rate on good X.



Quantity Supplied
Decreased

When there is gain in taxes, the cost of production of the commodity rises. This reduces the profits of the producer. Hence it will result in 'decrease in supply'.

The supply curve will shift leftward from S to S' .

dem of the commodity will be supplied at the same price. (Earlier OQ was supplied at Price now OQ_1 is supplied)

Is there a large number of sellers

There are large numbers of sellers in perfectly competitive market. This means that the output produced by a single firm is an insignificant part of market supply (total output).

Therefore, a single firm by changing its supply can not influence the market price.

Therefore, individual sellers have no influence over the market price. They are Price-Takers. They can sell any amount of commodity at the given price. The price is determined in the industry, which is the Price-Maker by market forces of supply and demand.

(b) Homoogeneous product

The product sold in perfectly competitive market are perfect substitutes of each other. They are identical in quality and the service related to their sale and delivery are identical.

Therefore, the consumer has no preference of firm. He is indifferent to firms. Therefore, the firm cannot increase the price as the consumer will buy from another firm.

• Homoogeneous product implies uniformity in prices.

Section B

14) Flows are variables that are concerned over a period of time.
They have a time dimension. for e.g. National Income is concerned over a year.

(a) Residants

Bureau receipts in the govt. Budget are those which neither create a liability nor produce an asset. ex - Taxes.

(c) Borrowings for interest payment.

20) (c) Autonomous transactions

Q1. Real Income = Nominal Income $\times \frac{1}{100}$
 Price Index

$$200 = \frac{\text{Nominal Income} \times 100}{135}$$

$$\text{Nominal Income} = \frac{2600 \times 135}{100}$$

$$= 270$$

Hence, Nominal Income is ₹ 270 crores.

Q2. Aggregate Demand is the value of all goods and services that an economy plans to buy during a given period of time.

$$AD = C + I + G + (X - M)$$

(Aggregate Demand is equal to Aggregate Expenditure)

Where, P is
C is a Consumption Expenditure

(i) This is the planned expenditure of all households in an economy on final consumption goods and services.

(ii) It is the Investment Expenditure: It is the planned expenditure of all the producers units on new capital goods.

It is of three types:

(i) Purchase of fixed assets

(ii) Addition to inventory

(iii) Construction of residential structures of the general govt. on providing free goods and services to the citizens. i.e. demand order.

(iv) $(X-M)$ is the Net exports - it is the net planned expenditure of foreigners on the domestic product [Exports-imports]

23 When an economy is in equilibrium

$$Y = C + I$$

$$Y = \bar{C} + bY + I$$

$$1050 = 200 + (MPC)1000 + 100$$

$$1050 - 200 - 100 = (MPC)1000$$

$$\frac{750}{1000} = MPC$$

$$MPC = \frac{I}{Y} = \frac{0.7}{1}$$

where Y = National Income

\bar{C} = Autonomous consumption
expenditure

I = Autonomous investment
incentive

$b = MPC = Marginal
Propensity to consume.$

Ques. As sale of petrol and diesel cars is rising, demand for domestic product is rising.

Therefore it will result in rise in Gross Domestic Product.

- * With rise in cars, one can assume that people will be having higher standards of living. Hence it will result in economic welfare.
- * However, petrol cars also lead to an increase in pollution levels of the country. This is an externality that is not accounted for in estimating Gross Domestic Product. It will harm the health of citizens and hence may actually reduce social welfare in some ways.

Ques 25 * In the Barter system, there was problem of lack of double coincidence of wants. An exchange could only happen if both the buyer and the seller wanted to buy each other's goods and sell their own goods to each other. It would be a rare occasion where two people would want to mutually exchange their commodities. It would usually involve a series of bartered intermediary exchanges before one got the desired commodity in exchange of one's own.

Money solved this problem.

* Money acts as a medium of exchange

- (i) No one has any obligation to give/receive money in exchange of their goods and services with the money received, the person can buy whatever he wants.
- (ii) Hence money acts as an intermediary between the buyer and the seller and increases ease of trade.

(iii) With money a person can buy whatever he wants, hence it's freedom of choice to the consumer of goods and gives

Q6:

~~Interest~~ Rejoice rate is the rate at which central bank lends to commercial banks for short term.

- * An increase in repo rate will increase the cost of borrowing from the Central Bank, for the commercial bank. This will induce the commercial banks to increase their rate of interest. Hence, this will lead to reduction in credit creation and money supply. It is used during situation of inflation, as it reduces AD.
- * A decrease in repo rate will reduce the cost of borrowing from the Central Bank. Hence the commercial banks will lower their rates of interest, hence encouraging borrowing.

This will lead to more credit creation and money supply

It is used in situation of deflationary pressure in the economy as it results in increase in AD.

Revenue expenditure

Capital Expenditure

Q16

- * It either creates asset, + it either creates asset, or reduces a liability.
- + It is incurred for removal of obsolescent activities, or reducing of govt departments and provision of services to reduce the liabilities of the govt.
- * It is repayment of loans, acquisition of machinery, building, equipment etc incurred by the govt etc.
- * Salaries and pensions, subsidies and grants given to State govt and UTs, interest on debt incurred by the govt etc.

122886

अपना अनुश्रूति क इस उत्तर-पुस्तिका

पर न लिखें

Please do not write your
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अंतिमिति उत्तर-पुस्तिका (अंग) को 4 अक्टूबर
2018

Supplementary Answer-Books

Q24 (contd.)

The govt runs its budget to promote economic equality. Economic inequalities are inherent in all economic systems but they need to be curbed to a socially acceptable level.

Through the budget, it can undertake redistribution of income and wealth in the society.

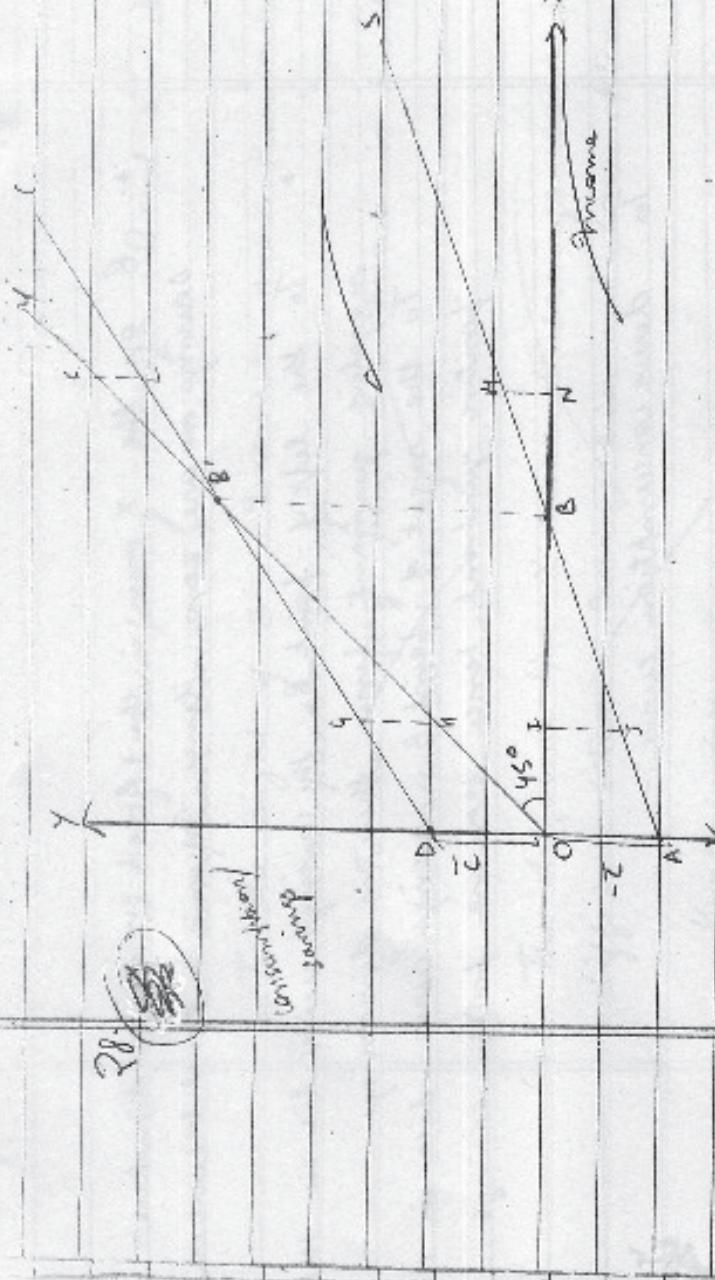
- * Tension : i) It can adopt a progressive taxation where the rich are taxed more than the poor.
ii) Heavy taxes can be imposed on luxuries, which are only consumed by those with excess incomes whereas necessities can be tax exempt as they are also consumed by the poorer sections.

• Government Expenditure

- Government can spend on subsidies given to poor or necessities such as food items.
- Govt. can spend on social welfare schemes.

Hence, in such a way, redistribution of income and wealth can be undertaken.

Ran



* In the above diagram, X axis denotes income and Y axis denotes savings and consumption.

Y is the income line where consumption is equal to income on every point.

S is the savings curve with $OA (-C)$ as dimension at zero level of income

- * On the X axis is the break-even point, where savings are zero. Hence income is equal to consumption.
- * To the left of point B, the savings curve lies in the negative quadrant, hence there are disavings.
To the right of point B, savings curve lies in the positive quadrant, hence there are positive savings.

To derive consumption curve :-

- i) Take OB on the upper part of Y axis equal to OA on the lower part of Y axis.
This is because autonomous consumption is equal to disavings at zero level of income.

- ii) Draw a perpendicular from point B on X axis to the income line, at B'. This is the break-even point, where consumption is equal to income.

(iii) Draw a straight line passing through D and B' to derive the consumption curve (c).

To the right of B' , income is more than consumption, hence there are positive savings.

To the left of point B' , income is less than consumption, hence there are drawings.

(iv) The difference b/w X axis and savings curve is equal to difference between ~~income~~ line and consumption curve.

$$\text{Hence, } GL = IJ$$

$$\text{and } KL = MN.$$

Hence, consumption curve is derived from saving curve.

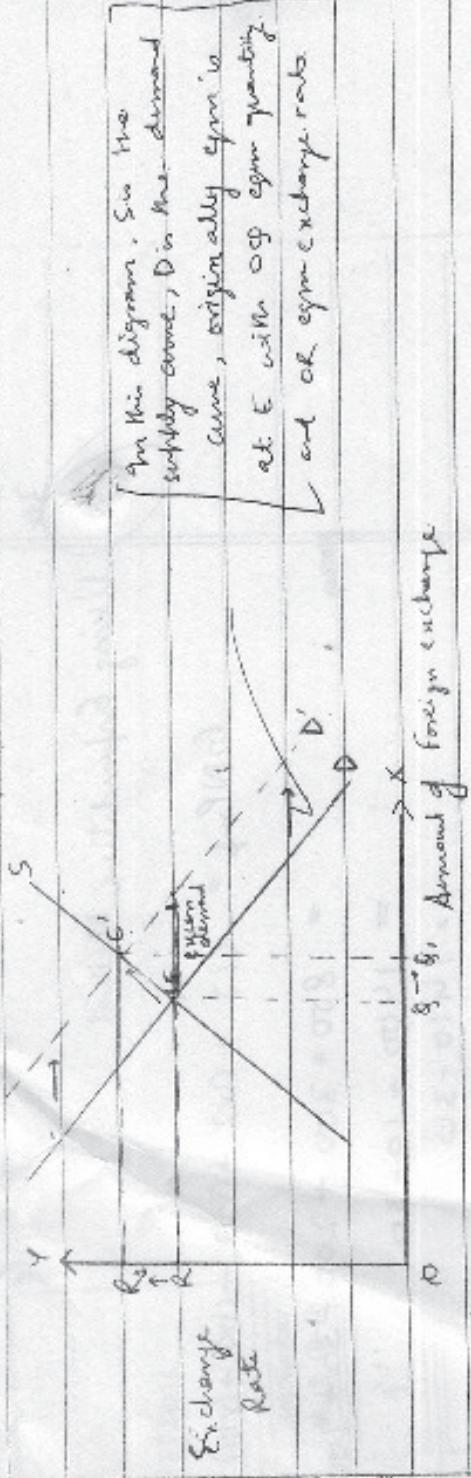
Q9. When investors lend abroad, it will recorded in the Capital Account of BOP. This is because it affect the asset and liability status of the country. It reduces need to creating account for the investor.

~~It will be recorded in the debit side as it leads to outflow of foreign exchange.~~

(c) ~~decreasing your need to import foreign exchange.
It will increase the supply of foreign exchange.
Therefore,~~

To lend abroad, the investor will need foreign exchange. Hence, it will result in increase in demand for foreign exchange.

As the demand for foreign exchange increases, it results in rightward shift of the foreign exchange demand curve from D to D'.



This will create a situation of excess demand at original price OR.

Hence the exchange rate will rise. As exchange rate rises, its demand contracts (upward shift on the demand curve) and supply creates surplus (downward shift on the supply curve).

This will continue till entire excess demand is eliminated and Equilibrium is attained at E' , with a higher exchange rate OR, and excess quantity OQ_1 .

Therefore, lending would result in nise in market exchange rate.

~~30~~

Using Expenditure Method

$$GNP_{mp} = (i) + (iv) + (vi) - (ix) + (viii) - (ii)$$

$$\begin{aligned}
 \text{Money} &= 850 + 300 + 200 - 30 + 150 + 10 \\
 &= 1400 + 10 - 30 \\
 &= 1410 - 30 \\
 &= \underline{\underline{1380 \text{ Crores}}}
 \end{aligned}$$

$$\text{Private Income} = GNP_{mp} - (viii) - (v) - (x) + [(xi) + (vi) - (ii)]$$

$$\begin{aligned}
 &= 1380 - 100 - 150 - 90 + [50 + 40 - 20] \\
 &= 1280 - 150 - 90 + [70] \\
 &= \underline{\underline{1110 \text{ Crores}}}
 \end{aligned}$$

1200	-150	120
-120	-120	-120
150	-90	-90
-150	-90	-90
70	-70	-70
Total	1110	1110