केन्द्रीय माध्यमिक शिक्षा बोर्ड, दिल्ली
सीनियर स्कूल सर्टिफिकेट परीक्षा (कक्षा बारहवीं)
परीक्षार्थी प्रवेश–पत्र के अनुसार भरें

विषय **Subject :** ECONOMICS

विषय कोड **Subject Code :** 030

परीक्षा का दिन एवं तिथि
Day & Date of the Examination : Monday, 17/4/2017

उत्तर देने का माध्यम
Medium of answering the paper : English

प्रश्न पत्र के ऊपर लिखे कोड को दर्शाएं :
Write code No. as written on the top of the question paper :

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58/1	● ② ③ ④

अतिरिक्त उत्तर–पुस्तिका (ओं) की संख्या
No . of supplementary answer -book(s) used 1

विकलांग व्यक्ति : हाँ / नहीं
Person with Disabilities : **Yes / No** No

किसी शारीरिक अक्षमता से प्रभावित हो तो संबंधित वर्ग में ✓ का निशान लगाएं।
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*एक खाने में एक अक्षर लिखें। नाम के प्रत्येक भाग के बीच एक खाना रिक्त छोड़ दें। यदि परीक्षार्थी का नाम 24 अक्षरों से अधिक है, तो केवल नाम के प्रथम 24 अक्षर ही 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
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SECTION-A

1. (d) All of the above

2. (b) Price of the good falls, expenditure on it falls

3. Indifference curve refers to the locus of ~~the~~ various combinations of two goods that are consumed to give the consumer the same level ~~maximum~~ of satisfaction.

4. (a) Perfect competition

5. One feature of monopolistic competition is that firms sell differentiated products that differ in terms of size, quality, features, etc.

6. Production possibilities frontier / curve refers to the locus of combinations of two goods that can be produced in an economy with given resources and technology and efficient utilisation of resources. It is also called Transformation curve.

Characteristics:

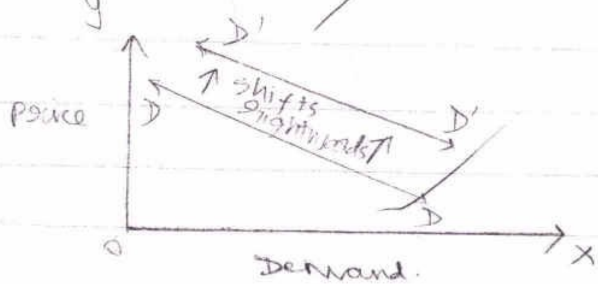
(i) sloping downwards from left to right:
The Production Possibilities curve slopes downwards from left to right as to produce more of one good the production of some units of the other good has to be sacrificed; this is because resources are fixed.

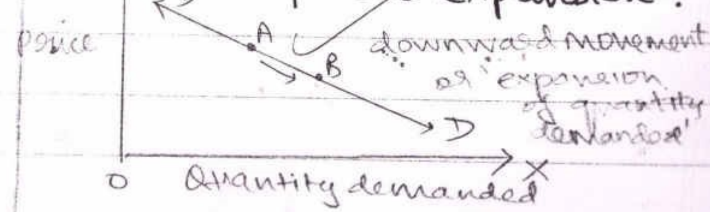
(ii) Concave to the origin:
The curve is concave to the origin as its slope Marginal Rate of Transformation (MRT) is rising continuously. This is because as more and more of one good is produced the ~~s~~ sacrifice required in terms of the other good increasing due to law of diminishing returns / ~~increasing costs.~~

7. How to produce:
This problem deals with how to produce goods and services in an economy with given resources.
It deals with - choice of techniques', whether labour intensive or capital intensive.
Labour intensive techniques use more of labour and less of capital.
Capital intensive techniques use ~~to~~ more of capital and less of labour.
The choice of techniques also depends on what kind of goods and services are required ~~by~~ for the economy.

8.

Basis	Increase in demand	Increase in quantity demanded
Meaning	It refers to rise in demand due to change in factors other than own price of the good/service	It refers to rise in quantity demanded due to change (in this case, fall) in own price of the good/service
~~Factors~~ Causes	It occurs to favourable change in tastes and preferences, rise in price of substitutes, rise in income, etc and not due to fall in price of own good/service	It occurs only due to fall in own price of good/service and not due to any other factor.
Effect on demand curve	There is rightward shift of demand curve due to rise in demand.	There is downward movement along demand curve to show rise in quantity demanded or 'expansion'.





9. Marginal Rate of Substitution (MRS) refers to the ratio of number of units of one good that has to be sacrificed from consumption, it ~~in terms of~~ order to consume an additional unit of another good i.e $\Delta y / \Delta x$.
It is the slope of the Indifference Curve. MRS continuously falls due to the law of diminishing marginal utility i.e as more and more of one good is consumed, the additional satisfaction derived diminishes.

Schedule:

Level	Good X	Good Y	MRS = $\frac{\Delta y}{\Delta x}$
	0	20	
I	1	15	5:1
II	2	12	3:1
III	3	10	2:1
IV	4	8.5	1.5:1

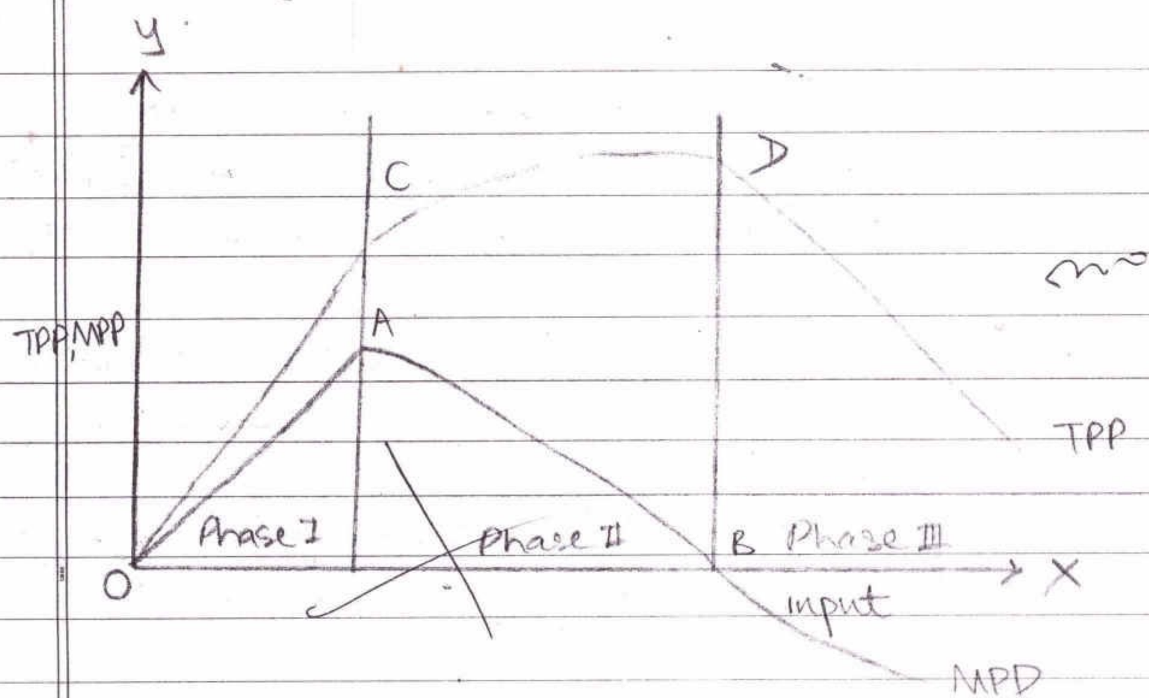
With the numerical example, at each level of consumption, the consumer sacrifices less and less of good y to consume another unit of good x.

⇒ The slope of indifference curve i.e MRS continuously falls as satisfaction of each additional good falls and hence less sacrifice is needed to obtain an additional unit of good x.

The MRS not only decreases, but decreases at a diminishing rate. At level I, we need 5 of Y to obtain one of X, II, 3 of Y to obtain one of X, and so on, MRS in terms of consumption and satisfaction keeps on falling.

(OR)

10. Production function refers to the mathematical and technological relationship between inputs used in production of good and output of the good.
When more and more units of only one input are employed ~~and~~ keeping other inputs constant, it is short-run production function where law of variable proportion operates
This law states that 'as more and more units of only one input are employed keeping other inputs constant, the addition to total product output keeps on falling'.
Due to this, we have the behaviour of marginal and total product
(i) When initially marginal product increases, total product increases at an increasing rate
(ii) When marginal product starts to fall, total product increases at a decreasing rate but is positive
(iii) When marginal product crosses x-axis and becomes negative, total product starts diminishing/falling.



not required

(i) MPP rises from O to A, MPP increases @ increasing rate from O to C

(ii) MPP is maximum at A, starts falls from A to B but is still +ve.
TPP increases @ decreasing rate from C to D

(iii) MPP is negative from B, TPP falls from D.

11.(i) Perfect competition is a form of market where large number of buyers and sellers deal in homogeneous products with perfect knowledge and freedom of exit and entry of firms

(ii) 'Perfect knowledge about markets' implies that both buyers and sellers have complete knowledge about the goods or services they buy or sell.

Buyers have complete information about products they buy as all products are homogeneous and there are a large number of sellers.

Sellers have full knowledge about technology used in production of goods and services ~~as they~~ due to homogeneity of ~~factors~~ products and mobility of factors, transportation, etc are present along with freedom of exit and entry of firms.

This 'perfect knowledge' features implies that ~~if~~ no seller can charge high prices and no buyer can buy at low prices. Buyers have full knowledge and hence will not pay higher prices for same product. Sellers will not sell the same product at low prices as they lose out on profits.

This means that products have uniform prices prevailing in the market. ~~This~~ due to sellers having perfect knowledge
Since costs are also uniform, profits (price − cost) are also uniform.
This is why firms earn uniform profits in perfect competition.

12. Price elasticity of demand (E_d) = (−) $\dfrac{\text{Percentage change in quantity demanded}}{\text{percentage ~~change~~ in price}}$ — ①

Original price P_1 = ₹10
new price P_2 = ₹12
change in price $\Delta P = P_2 - P_1$ = ₹2

⇒ Percentage change in price = $\dfrac{\text{Change in price } \Delta P}{\text{Original price } P_1} \times 100$

$= \dfrac{2}{10} \times 100 = 20\%$

Percentage change in quantity demanded = −20%
(fall)

$\Rightarrow$ From ① $E_d = \frac{-(-20)}{20} = 1$

$\therefore E_d = 1$; Elasticity of demand is unitary elastic

Now,

Original price $P_1 = ₹10$

New price $P_2 = ₹13$

Change in price $\Delta P = P_2 - P_1 = ₹3$

Percentage change in price $= \frac{\text{Change in price} (\Delta P)}{\text{original price} (P_1)} \times 100$

$= \frac{3}{10} \times 100 = 30\%$

To find : Percentage change in quantity demanded

We know $\Rightarrow$ $E_d = 1 = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}} = x\%$

From ①,

$1 = \frac{(-)(x\%)}{30\%}$

$x = -30\%$

Percentage change in quantity demanded = -30%
i.e quantity demanded falls by 30% when price rises from ₹10 to ₹13 per unit.

13.

Output (units)	Average fixed Cost (₹)	Marginal Cost (₹)	Average Variable Cost (₹)	Average Cost (₹)	Total fixed Cost (₹)	Total Cost (₹)	Total Variable Cost (₹)
0	–	60 | –	–	–	60	60	–
1	60	20	20	80	60	80	20
2	30	18	19	49	60	98	38
3	20	16	18	38	60	114	54
4	15	18	18	~~33~~ 33	60	132	72
5	12	23	~~20.6~~ 19	31	60	~~155~~ ~~163~~ 155	~~95~~ ~~103~~ 95

formulae used : Average Fixed Cost = Total Fixed Cost / Output
Average Cost = Total cost / Output
Average Variable cost = Total Variable Cost / output
Average cost = Average Fixed cost + Average Variable cost
Total Cost = Total Fixed cost + Total Variable cost
Total fixed cost is constant at all levels and exists at zero level.
Marginal cost = Δ Total Cost | Δ Total Variable cost

14. Producers equilibrium refers to the output level at
Which the producer earns maximum profits and profits
decline if more is produced.
Conditions for producers equilibrium from marginal-cost,
marginal-revenue approach:

① Marginal cost = Marginal Revenue (MC=MR)
② Marginal cost > Marginal Revenue (MC>MR) at the next level of output.

Schedule:

Output (units)	Total revenue (₹) (TR)	Total cost (TC) (₹)	Marginal Revenue (₹) (MR)	Marginal Cost (₹) (MC)	Profits (TR−TC) (₹)
1	10	8	10	8	2
2	18	15	8	7	3
3	24	21	6	6	3
$\boxed{4}$	28	25	4	4	3
5	30	33	2	8	−3

Producer attains equilibrium at 4th level of output.
This is because at 4th level:

(i) Marginal cost = Marginal Revenue = ₹4
(ii) At next level (5th), Marginal cost > Marginal Revenue
~~AA~~ (₹ 8 > ₹2)

Even though the first condition of MR = MC is satisfied. at 3rd level of output, the ~~aa~~ producer does not attain equilibrium there as ~~he~~ it does not fulfill the second condition.
At next level (4th), MC = MR = ₹4 and ~~not~~ MC is not > MR.

Hence, producer attains equilibrium at 4th level of output where MR = MC = ₹4 and the firms earn a profit of ₹3

15. Oligopoly is a market structure where a few big firms inter dependent on each other, ~~sell~~ make output and price decisions together ~~and~~ with ~~pe~~ barriers to the entry of firms.

Basis	Perfect oligopoly	Imperfect oligopoly
Meaning	A perfect oligopoly is an oligopoly ~~market form~~ where firms sell homogeneous products in the market.	An imperfect oligopoly is an oligopoly where firms sell heterogeneous/ differentiated products in the market
~~Ex~~ Products	The homogeneous products do not vary in terms of size, features, quality and are hence same	The heterogeneous products vary in terms of size, features, quality and are hence differentiated
Example	An oligopoly of water suppliers selling water from same source	Pepsi and Coca-Cola in the soft drink market

"Interdependence between the firms" feature of oligopoly:

1. In an oligopoly, firms are dependent on each other for taking mutual decisions regarding price and output. They incur selling costs to promote homogeneous/differentiated products.
2. There are only a few firms in the market and they exhibit group behaviour by either forming cartels / joining together to cooperate price and output decision making
3. They do this because if they take their own price and output decisions it would be counter-productive.
4. If one firm increases price the others may not follow and this creates loss of market share for the first firm.
5. If one firm decreases prices, the other firms may also decrease prices further leading to more customers for the latter
6. This leads to an undesirable price war. Hence firms in an oligopoly engage in non-price competition
7. Hence price and output decisions are taken together, it leads to price rigidity. This causes an uncertain relationship between price and output, leading to an indeterminate / kinked demand curve.

SECTION-B

16\. (b) Savings account deposits and current account deposits

17\. Marginal propensity to consume (MPC) refers to the ratio ~~between~~ of change in consumption (ΔC) to that of a corresponding change in income (ΔY).

$$MPC = \frac{\Delta C}{\Delta Y}$$

18\. $MPC > MPS$ $(MPC + MPS = 1)$

Maximum value of $MPS = 0.4999$

$$\therefore K_{\text{Minimum}} = \frac{1}{MPS} = \frac{1}{0.499} > 2$$

$$\therefore K > 2$$

(a) greater than 2

19. Gover~~t~~nment budget is an annual financial statement reflecting various estimated expenditures and estimated revenues for a particular financial year.

20. Depreciation of domestic currency refers to fall in the value of domestic currency with respect to foreign currency. When price of foreign currency rises ~~with respect to~~ in terms of domestic currency, ~~we say~~ the domestic currency depreciates.

21. Final goods are those goods ~~with~~ which are used for final consumption / investment by the consumer. It has crossed the production boundary.
Intermediate goods are those goods which are being used in the process of production from one production unit to another production unit, to be resold or added to capital stock at the end of the year. They have not yet crossed the production boundary.

Consider the example of purchase of milk:
If milk is purchased by a household for consumption it is a final good as it has crossed the production boundary and is not further processed.
If milk is purchased by a sweet shop for making milk cake, it is ~~a final good~~ an intermediate good as it is being used to produce cake. It has not crossed the production boundary and is meant for further processing and resale.

Hence, this is the bases of classifying goods into final and intermediate goods.

22. (OR)

x) The 'medium of exchange' function of money is a primary and most important function of money. It means that money can be used as a medium of exchange i.e it ~~to~~ can be exchanged ~~to~~ for goods and services at any point of ~~time~~ in the market.

(b) People with money can exchange it for goods and services they desire and those with goods/services can exchange the same for money. The market permits the use of money as a medium of exchange and hence holders of money ~~do not have to~~ always have the ability to exchange it for other goods and services

(c) It solves the problem of 'double coincidence of wants' in the barter system i.e where one's want for a good has to exist simultaneously with his offer of another for sale that the owner of the first good desires. This is a problem as finding mutual wants and offers is diffiult and cumbersome. Money solves it by serving as a medium of exchange at any point of time ~~[illegible]~~ in the market.

A tax is a legally compulsory payment made by a person / firm to the government.

23.

Basis	Direct taxes	Indirect taxes
Meaning	Direct taxes are those taxes whose incidence ~~to pay~~ and liability to pay fall on the same person.	Indirect taxes are those taxes whose incidence and liability to pay fall on different persons
Shifting of burden	The burden of tax cannot be shifted and liability to pay stays with same person	The burden of tax can be shifted and liability to pay is transferred to another person
Example	Income tax i.e tax on income of individuals is a direct tax as the individual cannot shift the tax and has to pay it on his own	Excise duty i.e tax on manufacture of goods is an indirect tax as it is shifted from manufactures to retailers / ~~[illegible]~~ dealers / customers.

24. The Central Bank is an apex bank carrying out the monetary policy of the country in public interest and regulating commercial banks, through the various functions assigned to it. RBI is central bank of India

Bankers bank and supervisor ~~of~~ function of central bank:

~~Bankers Bank:~~

(a) The Central Bank (Reserve Bank of India) acts as a banker to all commercial banks in India. It sets a reserve called Cash Reserve Ratio which refers to the portion of deposits commercial banks must keep with the RBI in form of cash reserves. The RBI regulates this ratio as a banker.

(b) This determines the available funds with the RBI. When commercial banks are in need of funds to meet the demand of depositors in emergency situations ~~or~~ or for other reasons, the Central Bank loans funds out of reserves. It charges interest on these short term or long term loans called repo rate and bank rate respectively. It hence acts as a lender of last resort.

(c) It also takes surplus funds of commercial banks for holding and provides interest on it ~~called~~ at Reverse Repo rate

(d) By acting as a Bankers' Bank, it takes care of the interests of depositors, ~~and~~ ~~other~~ commercial banks and other parties

(e) Supervisor:
The RBI also supervises commercial banks by regulating branch expansion, licensing, management, mergers, etc. It also undertakes periodic ~~supervision~~ inspection of these banks.

25. In an ~~equilibrium~~ economy,

Income = Consumption expenditure + Savings

$10{,}000 = 8{,}000 + \text{Savings}$

$\text{Savings} = 10{,}000 - 8{,}000 = 2{,}000$

We know savings ~~=~~ curve

$S = -\bar{C} + (1-b)Y$

Where S = Savings

$\bar{C}$ = Autonomous consumption

Y = Income

and $(1-b)$ = Marginal Propensity to Save (MPS)

Substituting values,

$$2{,}000 = -500 + (1-b)(10{,}000)$$

$$2{,}500 = (1-b)(10{,}000)$$

$$(1-b) = \frac{2{,}500}{10{,}000} = \frac{1}{4} = 0.25 = \text{MPS}$$

$\therefore$ Marginal Propensity to Save (MPS) $= 1-b = 0.25$

26. A government budget is an annual financial ~~statement~~ showing estimated revenues and expenditure for the financial year.

One of the objectives of the government budget is 'Bringing economic stability in the economy'

(i) A budget is helpful in creating economic stabilization in the economy by reducing fluctuating price levels, in times of deflation or inflation

(ii) In case of inflation, the government reduces expenditure and increases taxes so that purchasing power and money supply is reduced. This reduces demand and price levels and creates stability by bringing down inflation

(iii) In case of deflation, the government reduces taxes and increases expenditure so that purchasing power and money supply is increased. This increases demand and price levels and creates stability by ~~bringing down~~ reducing deflation

27. P.T.O

(a) Basis	Current account	Capital account
~~(i)~~ Meaning	In Balance of Payments, Current Account records inflow and outflow of foreign exchange relating to flow of goods and services and unilateral transfers.	In Balance of Payments, Capital Account records inflow and outflow of foreign exchange relating to creating / reducing assets and liabilities
Trans-actions	It includes exports and imports of goods and services, transfer receipts and payments, income receipts and payments	It includes borrowings and lending, investments from and to abroad, increase or decrease in foreign exchange reserves
Accomodating / Antonomous	In Current Account, only ~~accomodating~~ autonomous transactions ex: export of steel take place	In Capital Account, both accomodating and autonomous transactions take place ex: export of wood is autonomous while borrowings from IMF is accomodating

(b)

Basis	Autonomous transactions	Accomodating Transactions
Meaning	Autonomous transactions ~~These~~ are transactions in the Balance of Payments that are undertaken for economic / profit motive internationally.	Accomodating Transactions are transactions in the Balance of Payments (BOP) undertaken to cover deficit or surplus in BOP internationally.
BOP ~~or~~ deficit / surplus	These transactions cause Balance of Payments deficit or surplus	These transactions help correct / cover deficit or surplus in Balance of Payments
Current / Capital A/c	They are undertaken both in current and capital A/c ex: Import of iron ore	They are undertaken only in Capital A/c ex: ~~the~~ Borrowings from ~~the~~ IMF to cover deficit) decrease in foreign exchange reserve

(OR)

28\. National Domestic Product of India refers to the flow of goods and services produced in the economy in a year within the domestic territory or economic of the country. 1

(a) Profits earned by foreign companies in India is included in domestic product of India as it is earned by company situated in domestic /economic territory and hence adds to domestic product

2

(b) Salaries of Indians working in the Russian Embassy in India is not included in domestic product of India. This is because Russian Embassy is not in economic territory of India and hence the salary of Indians comes to India as factor income from abroad. It's hence not included in domestic product

(c) Profits earned by a branch of State Bank of India in Japan is not included in domestic product of India. This is because Indian banks in Japan are not part of India's economic or domestic territory. Hence the profits of SBI bank come to India as factor income from abroad and thus are not included in domestic product of India.

29. (a) National Income i.e Net National Product at Factor Cost
Income Method:

Items	(₹ in crores)
Compensation of Employees	2,000
(+) Rent	400
(+) Profit (includes dividend)	900
(+) Interest	500
(+) Mixed income of self-employed	7,000
Net Domestic Product at Factor Cost	10,800
(+) Net Factor Income From Abroad (Net Factor Income ~~from~~ to Abroad = 50 ₹ has to be deducted) ~~NFI~~	(50)
National Income i.e Net National Product at Factor Cost	10,750

[₹ Net Factor Income from abroad = −50]

(b) Net National Disposable Income

Items	₹ (in crores)
National Income i.e Net National Product at Factor Cost	10,750
(+) Net Indirect Taxes	300
Net National Product at Market Price	11,050
(+) Net current transfers from abroad	(30)
Net National Disposable Income	11,020

[Net current transfers to abroad = 30 (has to be deducted)
⇒ Net current transfers from abroad ~~(30)~~ = −30]

(a) National Income = ₹10,750 crores
Net National Disposable Income = ₹ 11,020 crores

2017

30. Consumption curve is a curve showing graphically the consumption function, which depicts the relation between income and consumption.
~~Let us take~~ a consumption curve.

$C = \bar{c} + by$ ——(1) where C = Consumption expenditure
$\bar{c}$ = Autonomous consumption
b = Marginal Propensity to Consume, Y = Income

We know,
Income = Consumption + Savings as
income can be either consumed or saved there are no other used to which it can be put.

$Y = C + S$ where S = Savings

Substituting (1),

$$Y = \bar{c} + by + S$$
$$Y(1-b) = \bar{c} + S$$
$$S = -c + (1-b)y$$

where $\bar{c}$ = Autonomous consumption
$1-b$ = Marginal Propensity to save
Y = Income

This is a savings curve or a graphical representation of a savings function showing the relationship between savings and income

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अपना अनुक्रमांक इस उत्तर-पुस्तिका पर न लिखें
Please do not write your Roll Number on this Answer-Book

अतिरिक्त उत्तर-पुस्तिका (ओं) की संख्या 1
Supplementary Answer-Book(S) No. ....

Let us take the consumption curve $C = 100 + 0.8Y$

$100 = \bar{C}$

$MPC = b = 0.8$

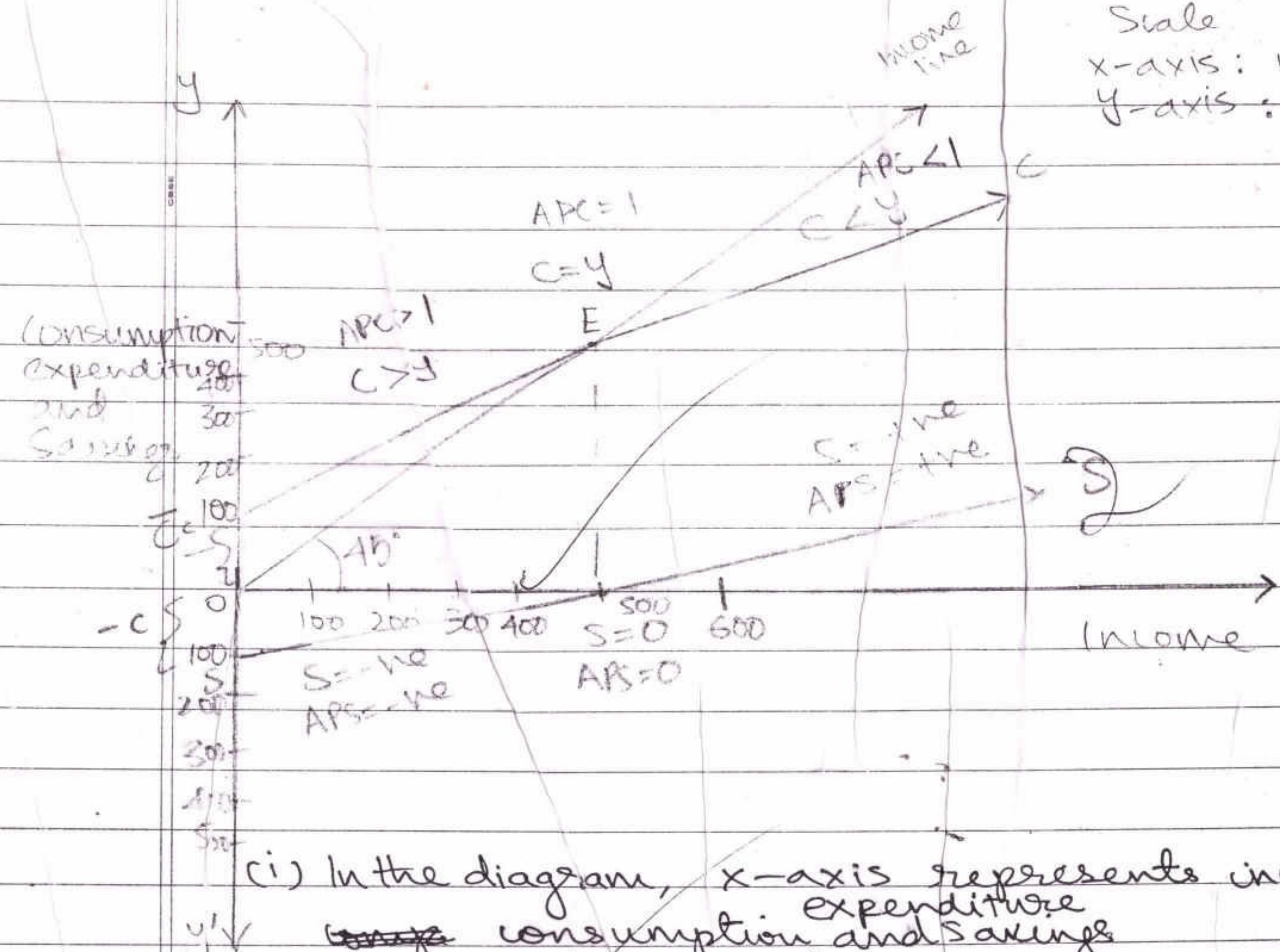
Using savings curve $S = -\bar{C} + (1-b)Y$

we get $S = -100 + (1-0.8)Y = -100 + 0.2Y$ where MPS = 0.2

Substituting values,

Y	C	S
0	100	-100
100	180	-80
200	260	-60
300	340	~~20~~ -40
400	420	-20
500	500	0
600	580	20

Scale
x-axis : income, ~~output~~
y-axis : Consumption expenditure and savings



(i) In the diagram, x-axis represents income and y-axis ~~consp~~ consumption expenditure and savings

(ii) CC is the consumption curve starting from ~~x~~ y axis at 100 due to autonomous consumption

(iii) ~~A~~ From the schedule, a savings curve SS has ~~been~~ derived with income and consumption (S = Y - C)

(iv) At zero level of income, c = 100 and S = -100 where savings curve SS meets negative y-axis at -100

(v) At levels from y = 100 to y = 400, consumption is greater than income and savings is hence negative. There is dissavings as the economy is forced to consume ~~the~~ excess of consumption over income from past savings, loans, etc. APS is hence negative (APS = S/y)

(vi) At E, the consumption = Income. This is the break even point where savings = 0. Hence savings curve SS ~~curve~~ touches x-axis at y = 500. APS = 0 as savings = 0 (Average Propensity to Save)

(vi) To the right of E, from level y = 500, Income exceeds consumption and hence there is positive savings. The savings curve crosses over ~~the~~ positive y-axis. APS is positive as savings is positive.

Hence, the savings curve has been derived from consumption curve in the economy through schedule and diagram.