

# CA FOUNDATION JAN 2025

## FREE AGASTYA BATCH

# BUSINESS ECONOMICS

Chapter -2

# Theory of Demand and Supply

PREVIOUS YEAR QUESTIONS

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Q: Calculate slope of Demand curve when price rises from ₹15 to ₹18 and demand falls from 20 units to 14 units.

- (A) 0.5
- ~~(B) -0.5~~
- (C) 0.8
- (D) 2

(B)

P	Q.D.
15	20
18	14

$$\begin{aligned} \text{Slope} &= - \frac{\Delta P}{\Delta Q} \\ &= - \frac{3}{6} = -\frac{1}{2} \\ &= -0.5 \end{aligned}$$



Q Calculate Price elasticity of Demand when slope of DD-curve is (-)2 and original price & qty is 5 and 10 respectively.

- (A) 1
- (B) -1
- (C) 2
- ~~(D) -0.25~~ (D)

$$\epsilon_p = - \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

$$= - \frac{1}{\text{Slope}} \times \frac{P}{Q}$$

$$= - \frac{1}{2} \times \frac{5}{10} = -0.25$$

Slope = -2  
P = 5  
Q = 10



#Q. Mr. X and Mr. Y are rich rivals and, in a party, Mr. X wears an expensive dress and on seeing it Mr. Y who also has the same dress decided to reject the use of the same dress further. Rather Mr. Y will try to use an even more expensive one. Which effect affects Mr. Y?

- A Bandwagon Effect
- B Demonstration Effect } Copy
- C Snob Effect [C]
- D Veblen Effect



#Q. Suppose the price elasticity of demand of a firm for its product is -1.2. If the price of the product is increased by 5%, then it is most probable that:

$$\epsilon_p = -1.2$$

$$\% \Delta P = 5\%$$

- A Both total revenue and profit would increase
- B Both total revenue and profit would decrease ✓
- C Total revenue would decrease but profit may increase
- D Total revenue would increase but profit may decrease

$\epsilon_p > 1$

⊖  
 $P \uparrow$   
 $P \downarrow$   
 $TR \downarrow$   
 $TR \uparrow$   
 $PL$

$\epsilon_p < 1$

⊕  
 $P \uparrow$   
 $P \downarrow$   
 $TR \uparrow$   
 $TR \downarrow$



#Q. The demand function of a product X (in kg.) is expressed as  $Q = 1000 - 50P$ , When price of X is 10 per kg., its price elasticity will be :

$$Q = 1000 - 50P$$

$$Q = 1000 - 50(10) \\ = 500$$

$$\epsilon_p = - \left( \frac{dQ}{dP} \right) \times \frac{P}{Q}$$

$$= -50 \times \frac{10}{500}$$

$$= -1$$

- A -2
- B 1 **(B)**
- C -2
- D 2



#Q. With respect to the properties of indifference curve which of the following statement is false ?

**A** Higher indifference curve represents higher level of satisfaction

**B** Indifference curve is a negatively sloped line

**C**  Intersecting point of two indifference curves represents highest level of satisfaction

**D** An indifference curve is convex to the origin





#Q. The price of a commodity is ₹ 10 per unit. At this price quantity supplied is 500 units. Price elasticity of supply of the commodity is 1.25. At what price the quantity to be supplied would be 20% more?

- A ₹ 8.40
- B ₹ 11.60
- C ₹ 12.50
- D ₹ 7.50

$$P = 10$$

$$Q.S. = 500$$
  

$$11.6$$
  

$$\frac{11.6}{1.6}$$
  

$$\frac{1.6}{1.25} = 16$$

$$\epsilon_p = \frac{\% \Delta Q.S.}{\% \Delta P}$$

$$1.25 = \frac{20}{\% \Delta P}$$

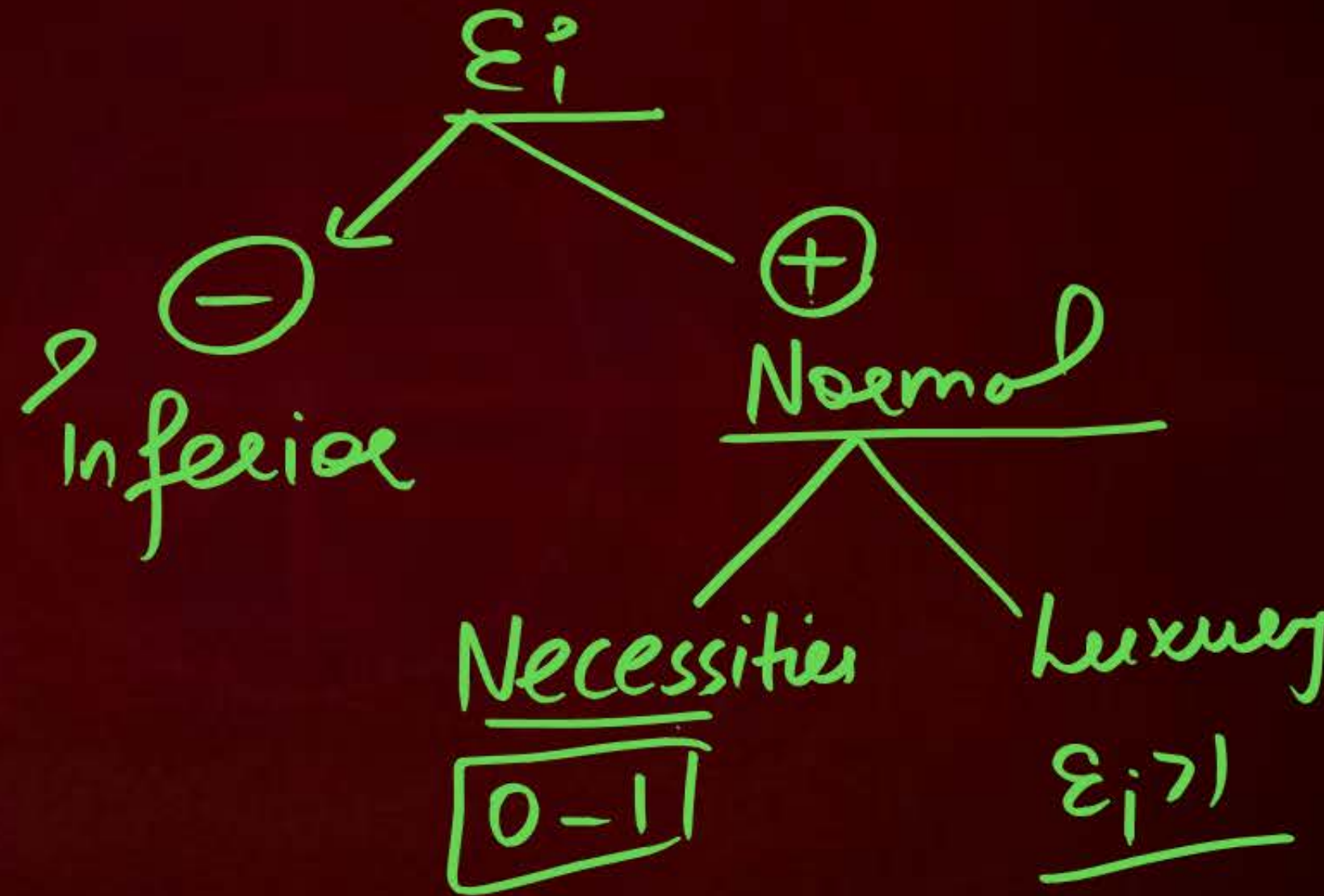
$$\% \Delta P = \frac{20}{1.25} = 16\%$$





#Q. If the income elasticity of a specific types of goods is greater than one, what does it suggest about the goods?

- A It is an inferior goods
- B It is a normal goods
- C It is a necessity goods
- D It is a luxury goods

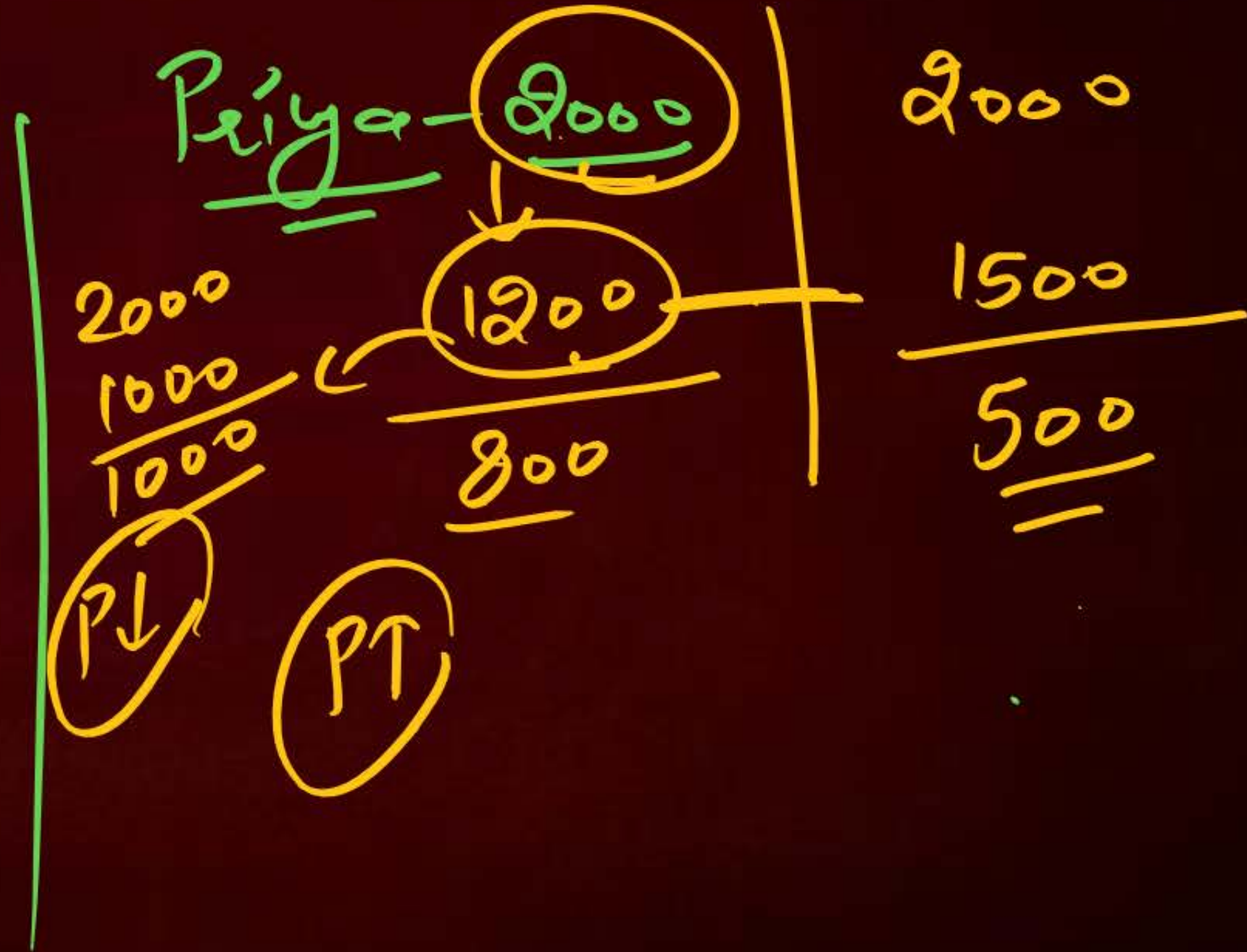


Handwritten mark: a circled 'D' with a checkmark and a plus sign above it.



#Q. An increase in consumer surplus is likely to occur when:

- A** There is a rise in price of goods
- B** There is a fall in price of goods
- C** Demand decreases
- D** Supply increases





QUESTION : September - 2024

#Q. Which tool does the ordinal utility approach uses to analyse consumer behaviour and is based on consumer preferences?

→ IC

- A** Indifference Curve Analysis **A**
- B** Law of Diminishing Marginal Utility
- C** Elasticity of Demand
- D** Consumer Surplus



#Q. The price of 1 kg. of tea is ₹ 50. At this price, 10 kg. of tea is demanded. If the price of coffee rises from ₹ 30 to ₹ 40 per kg., the quantity demanded of tea rises from 10 kg. to 15 kg. What will be the cross price elasticity of tea?

- A +1
- B -1.5
- C +1.5
- D -1

$$\epsilon_c = \frac{\Delta Q_y}{\Delta P_x} \times \frac{P_x}{Q_y} = \frac{5}{10} \times \frac{30}{10} = 1.5$$

(y) Tea  
 P 50  
 Q.D. 10 ✓  
 15 ✓

(x) Coffee  
 P 30 ✓  
 40 ✓

C



#Q. If change in quantity demanded is 60% and change in advertisement expenditure is 20% then what will be the advertisement elasticity ?

- A** 3 ⓐ
- B** 0.33
- C** 6
- D** 20

$$\begin{aligned}\epsilon_a &= \frac{\% \Delta Q}{\% \Delta A.E} \\ &= \frac{60}{20} = \underline{\underline{3}}\end{aligned}$$



QUESTION : January 2021

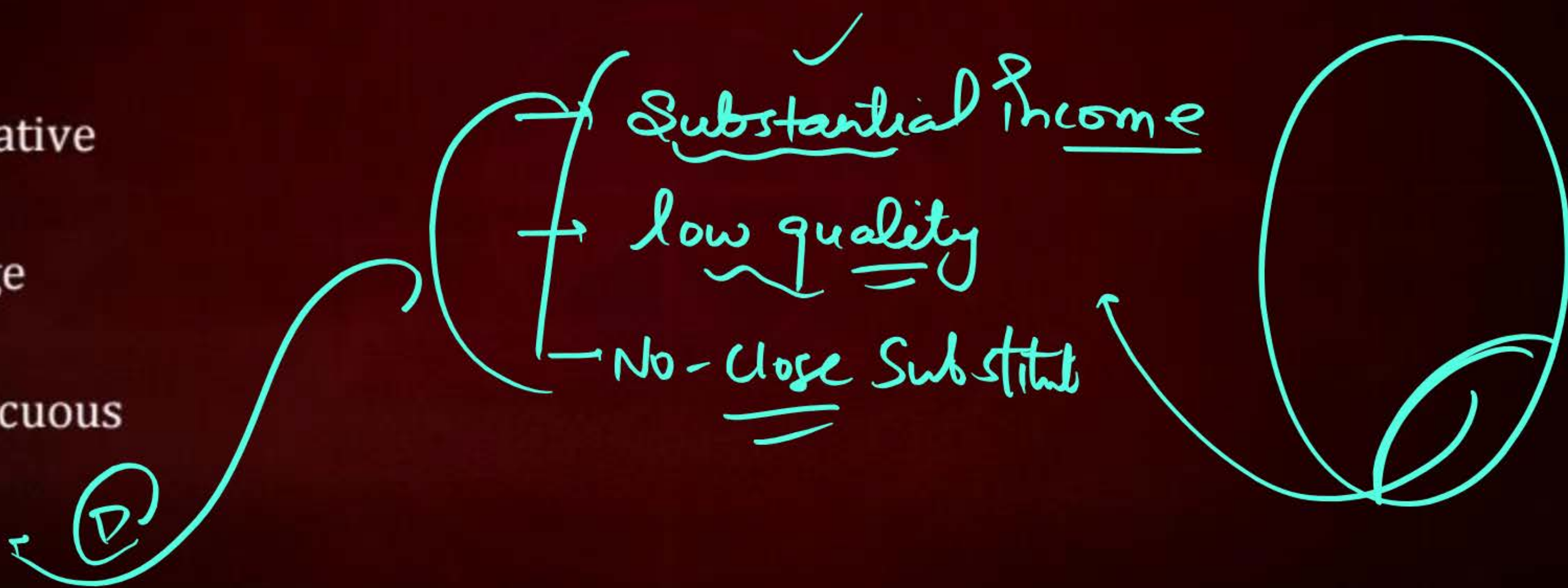
#Q. Effective demand depends on:

- Price **A**
- Cost
- Desire
- Product

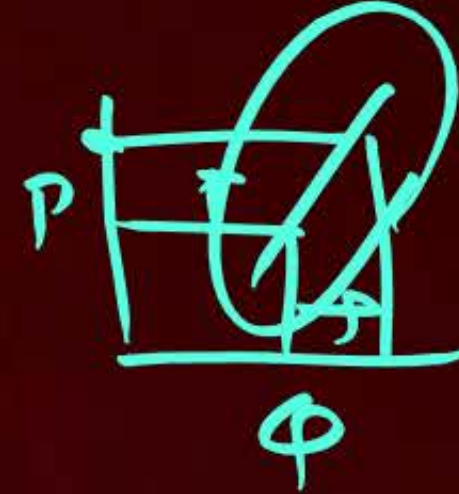
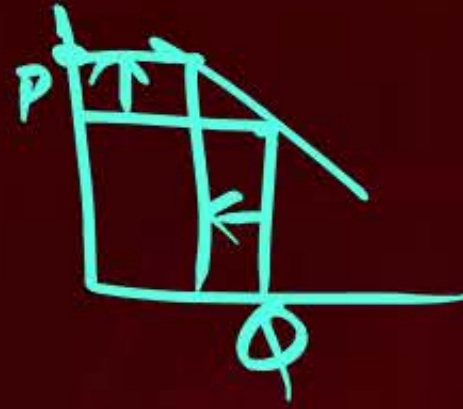


#Q. Goods which are inferior, with no close substitutes easily available and which occupy a substantial place in consumer's budget are called \_\_\_\_\_ goods.

- A Speculative
- B Prestige
- C Conspicuous
- D Giffen



#Q. In case of Veblen goods, the demand curve is:



- A** Horizontal
- B** Vertical
- C** Upward sloping to the right **C**
- D** Downward sloping to the right

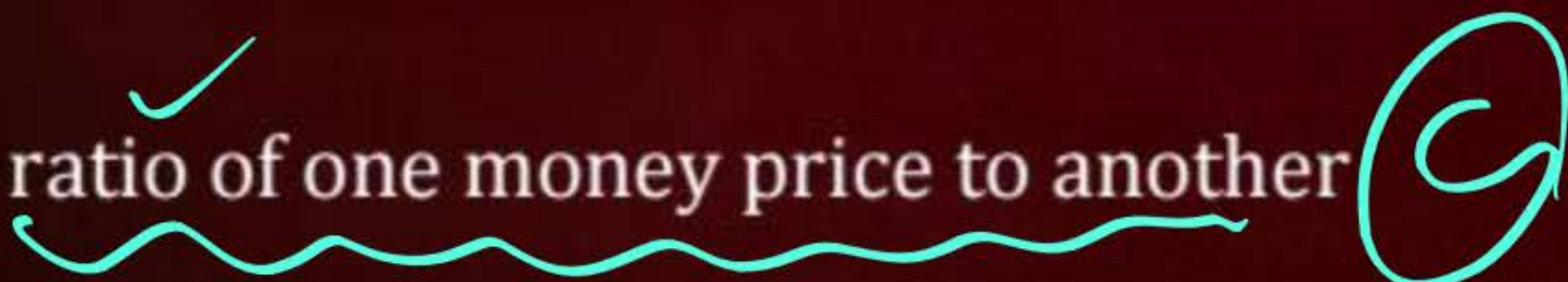




**QUESTION**

#Q. A relative price is:

$$\frac{P_1}{P_2}$$

- A** Price expressed in terms of money
- B** What you get paid for baby-sitting your cousin
- C** The ratio of one money price to another 
- D** Equal to a money price

## QUESTION



#Q. A Symbolic statement of a relationship between the dependent and the independent variables is called as \_\_\_\_\_.

**A** Function

**B** Sets

**C** Equation

**D** Variable

$$\text{Dependent } (D_x) = f(\text{Independent } (T, I, P, E \text{ etc.}))$$

$$\checkmark S_x = f(\text{---})$$
$$\checkmark Q_x = f(\text{---})$$



QUESTION : June 2023

#Q. Which of the following is not an exception to the law of demand?

- A Speculative goods ✓
- B Giffen goods
- C Necessary goods
- D Normal goods (D)

#Q. Calculate the price elasticity of demand, when the price increases from ₹ 20 to ₹ 22 and quantity demand falls from 300 to 200 units (Midpoint method)

A 4, 2

B -4.2

C 4

D -4

P	QD
20	300
22	200

$$\begin{aligned} \epsilon_p &= \frac{Q_2 - Q_1}{P_2 - P_1} \times \frac{P_1 + P_2}{Q_1 + Q_2} \\ &= \frac{-100}{2} \times \frac{42}{500} \\ &= \underline{\underline{-4.2}} \end{aligned}$$



#Q. The price of a good decreases from ₹ 80 to ₹ 40 per unit. If the price elasticity of demand for the given product is 1.5 and the original quantity is 20 units, then the new quantity demanded will be:

- A 15 Units
- B 35 Units
- C 18 Units
- D 48 Units

Handwritten solution showing the calculation of price elasticity of demand and the resulting change in quantity.

Diagram illustrating the relationship between Price (P) and Quantity (Q):

- Initial Price (P) = ₹ 80
- Initial Quantity (Q) = 20
- New Price (P) = ₹ 40
- Change in Quantity (ΔQ) = 15
- Final Quantity (Q) = 35

Formula for Price Elasticity of Demand ( $\epsilon_p$ ):

$$\epsilon_p = - \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

Substituting the values:

$$1.5 = \frac{\Delta Q}{40} \times \frac{80}{20}$$

Solving for ΔQ:

$$1.5 = \frac{\Delta Q}{40} \times 4$$

$$1.5 \times 40 = \Delta Q$$

$$60 = \Delta Q$$

Since the initial quantity is 20, the new quantity is 20 + 15 = 35.

#Q. Calculate the price elasticity of demand if the household increases his demand for commodity x from 80 units to 100 units and price of a product x decreases by 10%.

- A 2.5
- B 0.4
- C 10
- D 1.25

A

Q<sub>D</sub>  
80  
100

$$\begin{aligned} \% \Delta Q &= \frac{\Delta Q}{Q} \times 100 \\ &= \frac{100 - 80}{80} \times 100 \\ &= 25 \end{aligned}$$

$$\epsilon_p = \frac{\% \Delta Q}{\% \Delta P} = \frac{25}{10} = \underline{\underline{2.5}}$$



QUESTION : December 2021

#Q. The numerical value of elasticity of demand can assume any value between:

A Zero and -1

B Zero and infinity

C -1 and +1

D Zero and +1

$0 < \epsilon_p < \infty$

B



#Q. If the price of a gel pen increases from ₹ 40 to ₹ 50 and in response to this the quantity demand decreases from 25 units to 20 units. The coefficient of price elasticity will be:

- A 1.25
- B -1.25
- C 0.8
- D -0.8

P	Q.D.
40	25
50	20

$$\begin{aligned} \epsilon_p &= -\frac{\Delta Q}{\Delta P} \times \frac{P}{Q} \\ &= -\frac{5}{10} \times \frac{40}{25} \\ &= -0.8 \end{aligned}$$





#Q. Mr. Z went to a stationery shop to buy pens. The price of pen decreased from ₹ 5 to ₹ 3 per unit. If the price elasticity of demand for pen is 2.5 and the original quantity demanded for pen is 20, then how much is the new quantity of demanded.

- A 10
- B 40
- C 30
- D 20

**B**

$P$	$Q$	
5	20	
3	?	$\rightarrow 20 + 20 = 40$

$\epsilon_p = 2.5$

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

$$2.5 = \frac{\Delta Q}{2} \times \frac{5}{20}$$

$20 = \Delta Q$



## QUESTION

#Q. Suppose potatoes have (-) 0.4 as income elasticity. We can say from the data given that:

- A** Potatoes are inferior goods
- B** Potatoes are superior goods
- C** Potatoes are necessities
- D** There is a need to increase the income of consumers so that they can purchase potatoes



QUESTION : June 2023

#Q. When two goods are unrelated then cross elasticity of demand will be \_\_\_\_\_.

- A 0 ✓
- B 00
- C 1
- D (-)



#Q. If the advertisement expenditure on X commodity increase by 20% and demand for it increases only by 5%. The advertisement elasticity of demand for X commodity is:

- A 0.25
- B (-)0.25
- C 4
- D (-) 4

$$\epsilon_a = \frac{5}{20}$$



QUESTION : December 2021

#Q. Which of the following statements about utility is incorrect?

- A** Utility is ethically neutral
- B** A commodity has utility even when it is not consumed
- C** Utility is subjective and varies from person to person
- D** Utility is the same thing as usefulness

ⓓ

## QUESTION



#Q. The concept of Consumer's Surplus was Propounded by \_\_\_\_\_.

**A** Alfred Marshall ✓

**B** Hicks and Allen

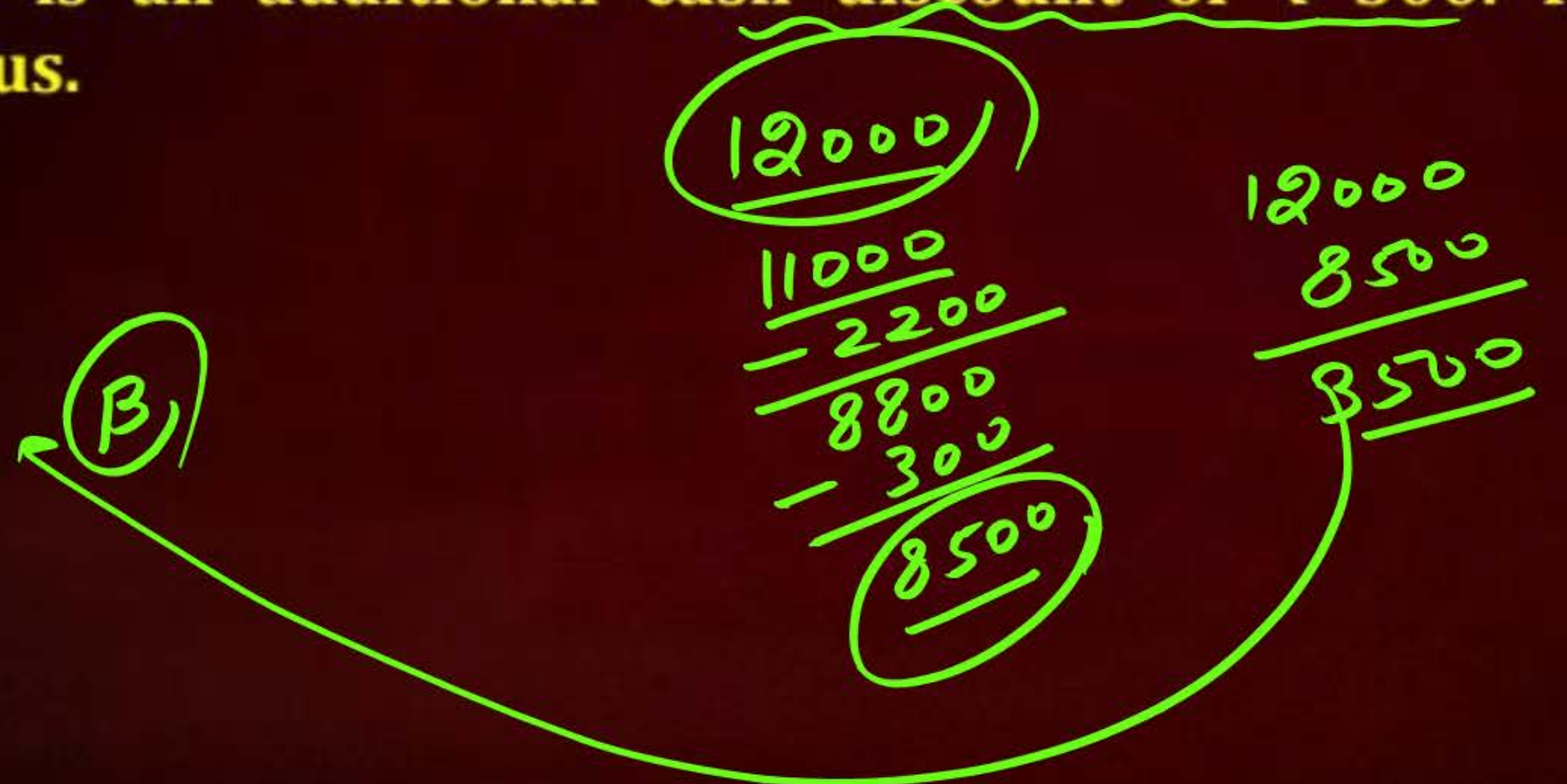
**C** J. B. Say

**D** None of these



#Q. Ram wanted to purchase an Apple tab at ₹ 12,000/-. Actual price in the market (MRP) is ₹ 11,000/- and discount was given at 20%. Also there is an additional cash discount of ₹ 300. Find consumers surplus.

- A** 3200
- B** 3500
- C** 1000
- D** 3300





#Q. Which of the following is not the property of indifference curve?

- A** Slopes downwards to the right ✓
- B** Always convex to the origin ✓
- C** Intersects each other ✓
- D** Will not touch either of the axes ✓








QUESTION : CA CPT May 2019, November 2020

#Q. Indifference curve is **L shaped** then two goods will be:

**A** Perfect substitute goods 

**B** Substitute goods

**C** Perfect complementary goods 

**D** Complementary goods

## QUESTION



#Q. The slope of the 'Price Line' indicates the ratio between Prices of the two goods.

Budget line =  $-\frac{P_x}{P_y}$

- A Prices
- B Quantities demanded
- C Quantities Sold
- D Marginal Utility



QUESTION : CA CPT May 2018, January 2021

#Q. Supply is a ? concept.

- A** Flow **A**
- B** Stock
- C** Flow and Stock, Both
- D** Qualitative



#Q. Contraction of supply implies ?

- A** Decrease in cost of production
- B** Decrease in price of the good concerned
- C** Decrease in price of related good
- D** Increase in price of the good concerned

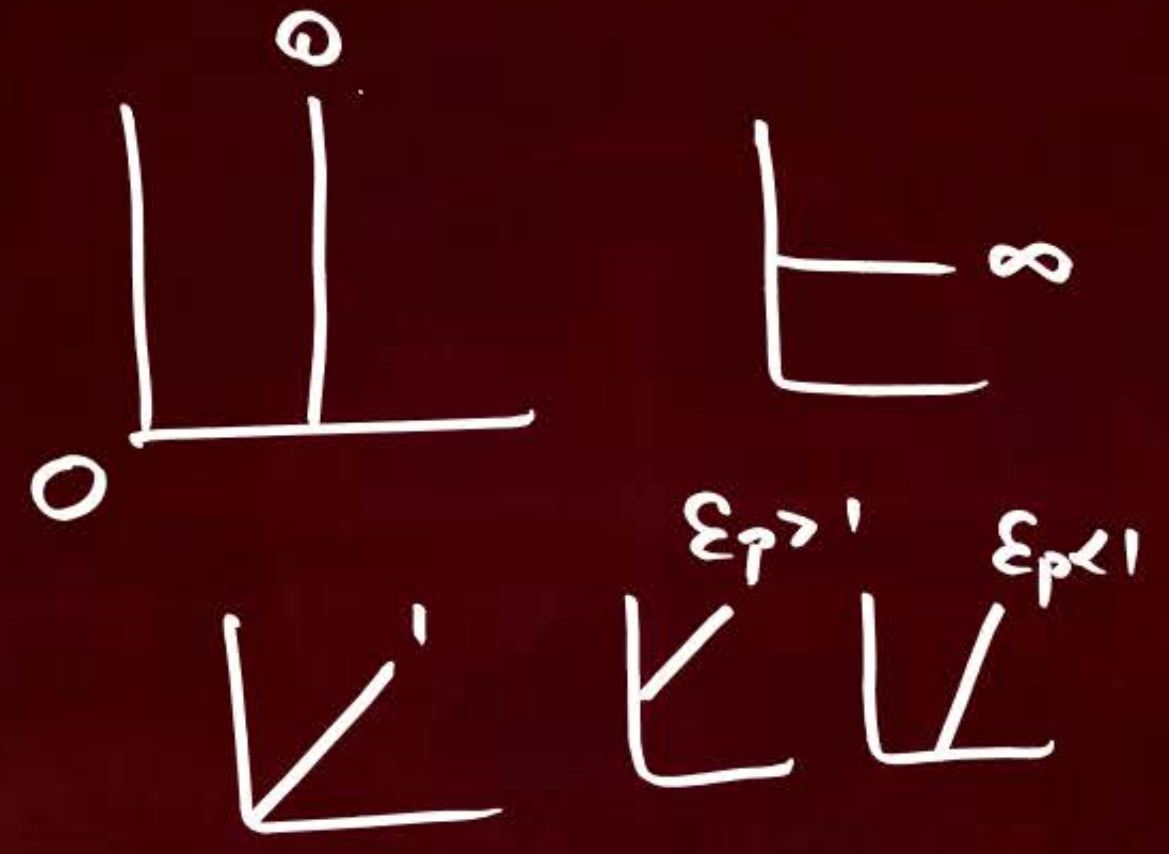




#Q. A vertical supply curve parallel to the Y-axis exhibits that the elasticity of supply is:

Show

- A** Zero **(A)**
- B** Infinite
- C** Elastic
- D** Inelastic



QUESTION



#Q. The supply function is given as  $Q = -100 + 10P$ . Find the elasticity using point method, when price is ₹ 15.

- A 4
- B -3 ~~X~~
- C -5
- D 3 D

$$Q = -100 + 10(15)$$
$$= -100 + 150$$
$$= 50$$
$$\epsilon_s = \frac{dQ}{dP} \times \frac{P}{Q}$$
$$= 10 \times \frac{15}{50}$$

#Q. Consumption of high-priced goods by status seeking rich people for conspicuous consumption is called as \_\_\_\_\_

(June 2024)

- A Snob effect
- B Bandwagon effect
- C Demonstration effect
- D Veblen effect

TIPPER  
A  
C N G

#Q. Price of goods expresses value of ✓ \_\_\_\_\_.

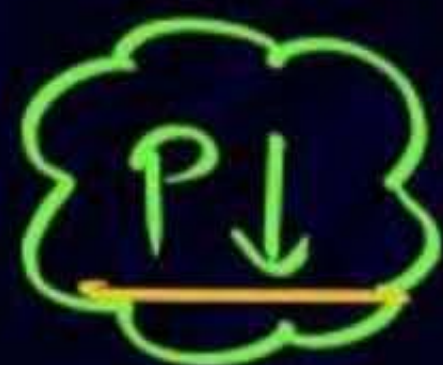
✓ (June 2023)

- A Exchange ✓ (A)
- B Cost
- C Demand
- D Fair



#Q. The substitution effect will be what when the price of the product falls?

(June 2022)



- A Zero
- B Negative
- C Positive ✓ (C)
- D Lower cost

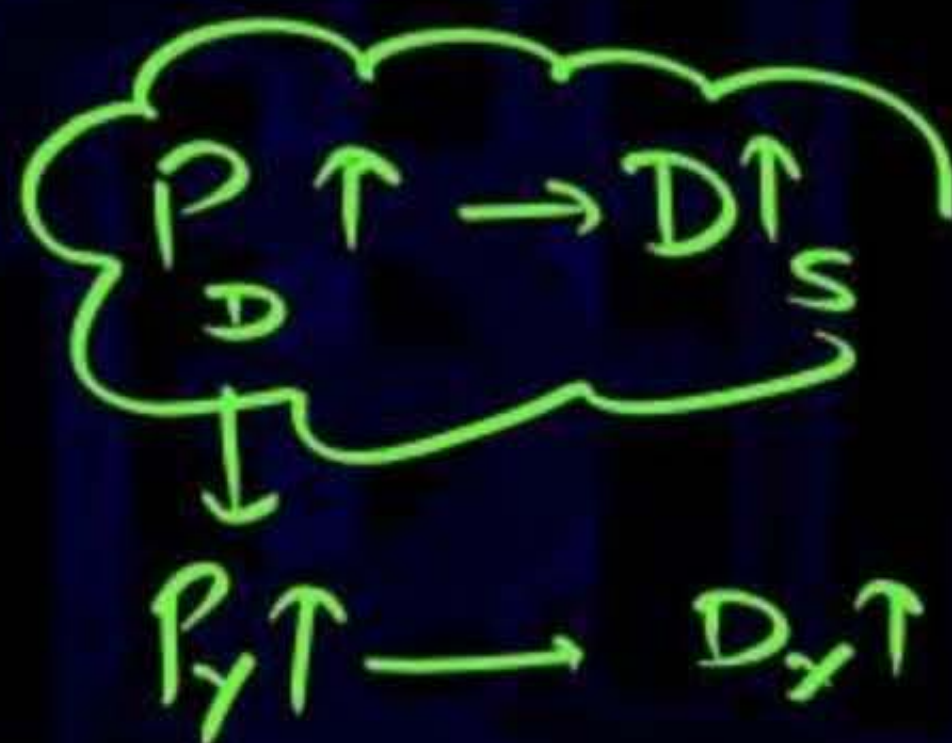
Price effect =  $S \cdot \epsilon + I \cdot \epsilon$

$\oplus$  (under  $S \cdot \epsilon$ )
   
 $\oplus$  (under  $I \cdot \epsilon$ )
   
 $\ominus$  (under  $I \cdot \epsilon$ )
   
 (under  $I \cdot \epsilon$ )  $\left[ \begin{array}{l} Y \uparrow D \uparrow \\ Y \uparrow D \downarrow \end{array} \right]$

#Q. Increase in price of pulses leads to increase in demand of green vegetables. The pulses and green vegetables are \_\_\_\_\_

(June 2023)

- A Substitutes (A)
- B Complimentary goods
- C Normal goods
- D None of the above



#Q. Due to increase in price of coffee, the demand for tea increases. The two commodities under consideration are:

(June 2022)

- A Substitute goods ✓ (A)
- B Complementary goods
- C Unrelated goods
- D Producers goods

$$P_y \uparrow \longrightarrow D_x \uparrow$$

#Q. The demand for petrol decreases due to increase in its price, it is termed as:

(June 2022)

P ↑ → D ↓

- A A decrease in demand
- B A change in demand
- C A contraction in demand ✓ (C)
- D An increase in demand



Change in Qty. DD  
OR  
Movement on DD-curve

Upward

Contraction

P	Q.D.
10	200
20	100

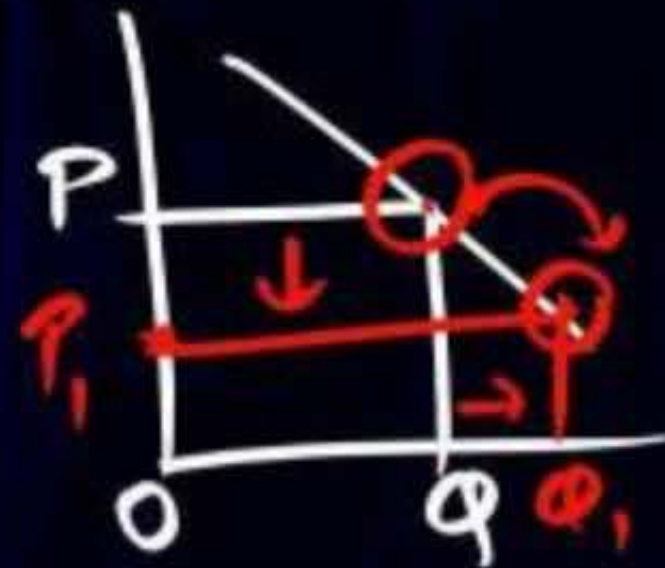
P ↑ D ↓

Expansion

P	Q.D.
10	100
5	200

P ↓ D ↑

Downward



#Q. Which of the following is not an exception to the law of demand?

(June 2022)

- A** Giffen goods  $P \uparrow D \uparrow$
- B** Speculative goods
- C** Conspicuous goods
- D** White goods ✓ **D**

#Q. If the demand of Bajra decreases due to decrease in its price, then Bajra is a:

(June 2023)

$P \downarrow$   $D \downarrow$

$Y \uparrow$   $D \downarrow$   
income effect  $\leftarrow$  Substitution Effect  $\oplus$

**A** Superior good  $\times$

**B** Inferior good  $\oplus$

**C** Necessary good

**D** Luxury good  $\times$



#Q. Movement along the same demand curve represents:

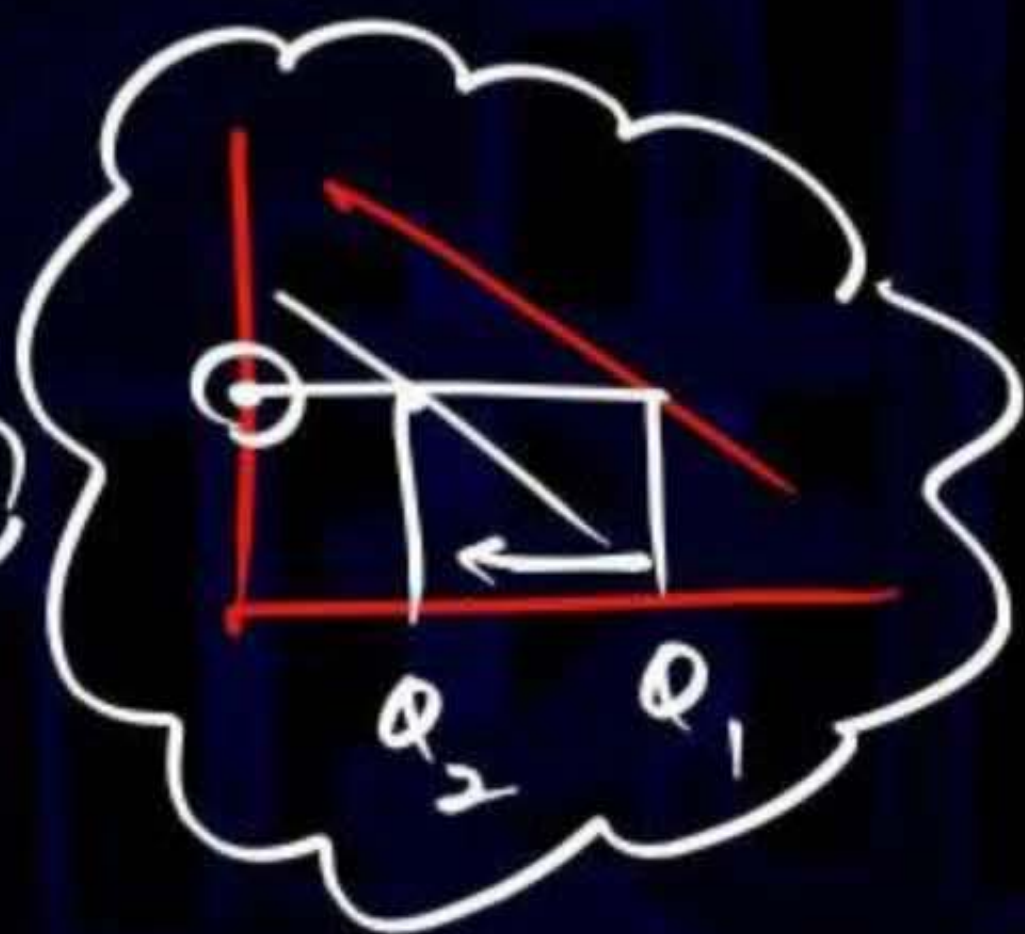
(June 2023)

- A Change in demand
- B Change in Quantity demanded ✓ (B)
- C Increase in demand
- D Decrease in demand

#Q. Leftward shift of demand curve of coffee represents:

(June 2022)

- A** Decrease in demand **A**
- B** Increase in demand
- C** Contraction
- D** Expansion





#Q. If the proportionate change in price is greater than the proportionate change in quantity demanded of a commodity, the price elasticity of demand will be:

(June 2022)

- A Zero
- B Inelastic
- C Elastic
- D Infinite

$$\% \Delta P > \% \Delta QD$$

$$\epsilon_p = \frac{\% \Delta QD}{\% \Delta P} = \frac{9}{10} = 0.9$$

#Q. If the price of a gel pen increases from ₹ 40 to ₹ 50 and in response to this the quantity demand decreases from 25 units to 20 units. The coefficient of price elasticity will be:

(June 2023)

A 1.25

B -1.25

C 0.8

D -0.8

D

P	Q.D.
40	25
50	20

$\Delta Q = 5$

$$\epsilon_p = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$
$$= \frac{5}{10} \times \frac{40}{25} = 0.8$$

#Q. Mr. Z went to a stationery shop to buy pens. The price of pen decreased from ₹ 5 to ₹ 3 per unit. If the price elasticity of demand for pen is 2.5 and the original quantity demand for pen is 20, then how much is the new quantity of demanded.

- (A) 10  
 (B) 40  
 (C) 30  
 (D) 20

Handwritten solution:

P	Q <sub>D</sub>
5	20
3	40

$\epsilon_p = 2.5$

$$2.5 = \frac{\Delta Q}{Q_1} \times \frac{P_1}{\Delta P}$$

$$2.5 = \frac{20}{Q_2 - 20} \times \frac{5}{2}$$

$$2.5 = \frac{20}{Q_2 - 20} \times \frac{5}{2}$$

$$2.5 = \frac{50}{Q_2 - 20}$$

$$2.5(Q_2 - 20) = 50$$

$$2.5Q_2 - 50 = 50$$

$$2.5Q_2 = 100$$

$$Q_2 = \frac{100}{2.5} = 40$$

20 + 20 = 40

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

$2.5 = \frac{\Delta Q}{2} \times \frac{5}{20}$

$2.5 = \frac{\Delta Q}{2} \times \frac{1}{4}$


$2.5 = \frac{\Delta Q}{8}$

$20 = \Delta Q$

(June 2024)

#Q. For which of the following product elasticity of demand is highly elastic?

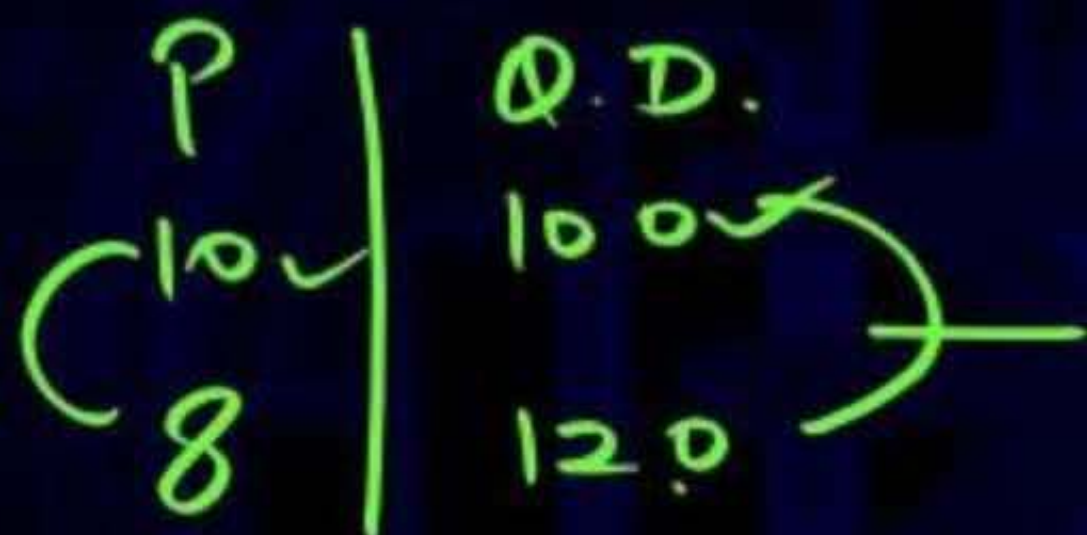
(July 2021)

- A Salt
- B Life-saving medicines
- C water
- D Jewellery 

#Q. The price of X commodity decreases from 10 to 8, owing to which its demand increases from 100 to 120 units. Calculate the price elasticity of demand.

(June 2022)

- A** (-) 1 **A**
- B** 1
- C** 0.8
- D** 1.2



$$\epsilon_p = \frac{\frac{\Delta Q}{Q}}{\frac{\Delta P}{P}} = \frac{20}{2} \times \frac{10}{100} = 1$$

#Q. Suppose there is an increase in income by 15%, which increases demand by 30% the income elasticity of demand will be \_\_\_\_\_.

(June 2023)

A 0.67

B 0.5

C 2 ✓

D 1.0

$Y \uparrow \quad D \uparrow$

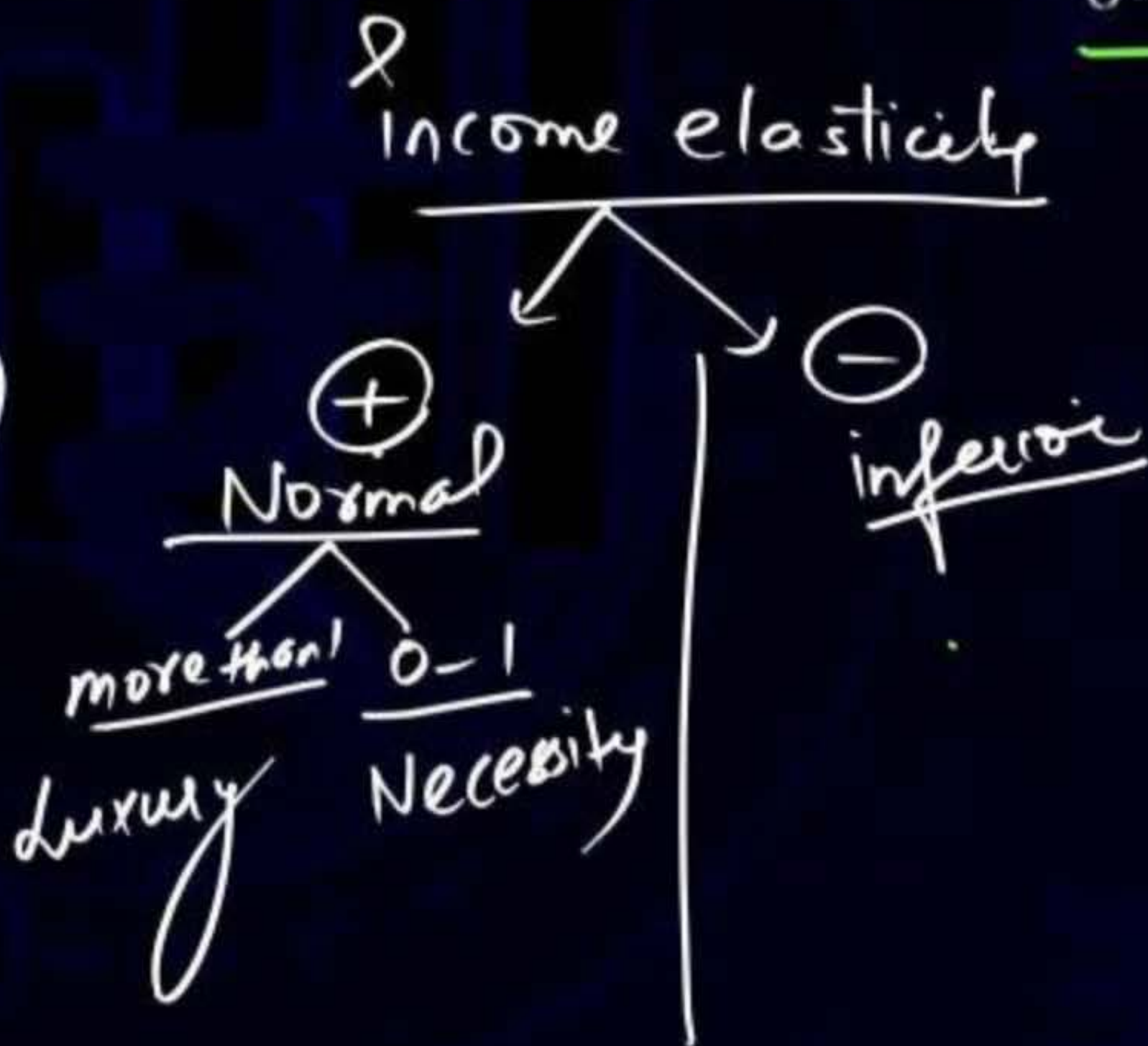
$$\epsilon_i = \frac{30}{15} = 2$$



#Q. When oranges has  $- (0.58)$  income elasticity the commodity orange is called as \_\_\_\_\_.

(June 2023)

- A Orange is a necessary good
- B Orange is a inferior good
- C Orange is a substitute good
- D None



#Q. The price of 1 kg. of tea is ₹ 30. At this price, 5 kg. of tea is demanded. If the price of coffee rises from ₹ 25 to ₹ 35 per kg., the quantity demanded of tea rises from 5 kg. to 8 kg. The cross price elastic of tea is \_\_\_\_\_.

(Jan 2021)

(A) 1

(B) 0.5

(C) 1.5

(D) 0

$P_{C,Y}$	$Q_{T,X}$
25	5
35	8

$$\begin{aligned}
 E_C &= \frac{\% \Delta Q_x}{\% \Delta P_y} = \frac{\Delta Q_x}{\Delta P_y} \times \frac{P_y}{Q_x} \\
 &= \frac{3}{10} \times \frac{25}{5} \\
 &= 1.5
 \end{aligned}$$

#Q. If the advertisement expenditure on X commodity increase by 20% and demand for it increases only by 5%. The advertisement elasticity of demand for X commodity is:

(June 2022)

$$\frac{5}{20} = \underline{\underline{0.25}}$$

- A 0.25 ~~A~~
- B (-) 0.25
- C 4
- D (-) 4

#Q. Consumer's surplus = what the consumer is <sup>7000</sup>ready to pay minus  
6500?

(June 2022)

- A What is actual price of the product
- B What is income of the consumer
- C What he actually pays C
- D What is actual surplus

#Q. A point above the budget line of a consumer represents

(June 2024)



- A** Represents costs less than the whole consumers income.
- B** Represents combination of goods which costs whole of consumers income
- C** Represents a combination which is totally unattainable. ✓ (C)
- D** Represents a combination that is attainable

#Q. Due to introduction of 5G mobiles in the market, the price of such mobiles has increased by 20% and thereby supply increased by 40% the elasticity of supply will be which of the following?

(June 2023)

A 0.5

B -0.5

C -2

D 2

20%  
40%

$$\left\{ \frac{40}{20} \right\} = 2$$

#Q. When No. of tourists increase at a place for which the room rent of hostel also increases. Then the elasticity of supply of room will be \_\_\_\_\_.

0% (June 2023)

**A** Zero

**B** <1 **B**

**C** >1

**D** =1



Chap. 1, 2, 6, 7, 10  
↓  
Chanakya 2.0

Chap. 3, 4, 5, 8, 9  
↓  
Augustya





**THANK**

**YOU**

