

Eco101 - MidTerm - Set 3Question 1

(a) Using the Hint, we can create the table.

Country 1

15 mins = 3 T-shirts

60 mins = 12 T-shirts

Country 2

15 mins = 4 T-shirts

60 mins = 16 T-shirts

Country 1

20 mins = 5 Trousers

60 mins = 15 Trousers

Country 2

20 mins = 8 Trousers

60 mins = 24 Trousers

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	No. T-shirts (1hr)	No. Trousers (1hr)
Country 1	12	15
Country 2	16	24

For Country 1,

$$12 \text{ T-shirts} = 15 \text{ Trousers}$$

$$1 \text{ T-shirt} = \frac{1}{12} \times 15$$

$$3 \text{ T-shirts} = \frac{15}{12} \times 3$$

$$= 3.75 \text{ Trousers (Ans.)}$$

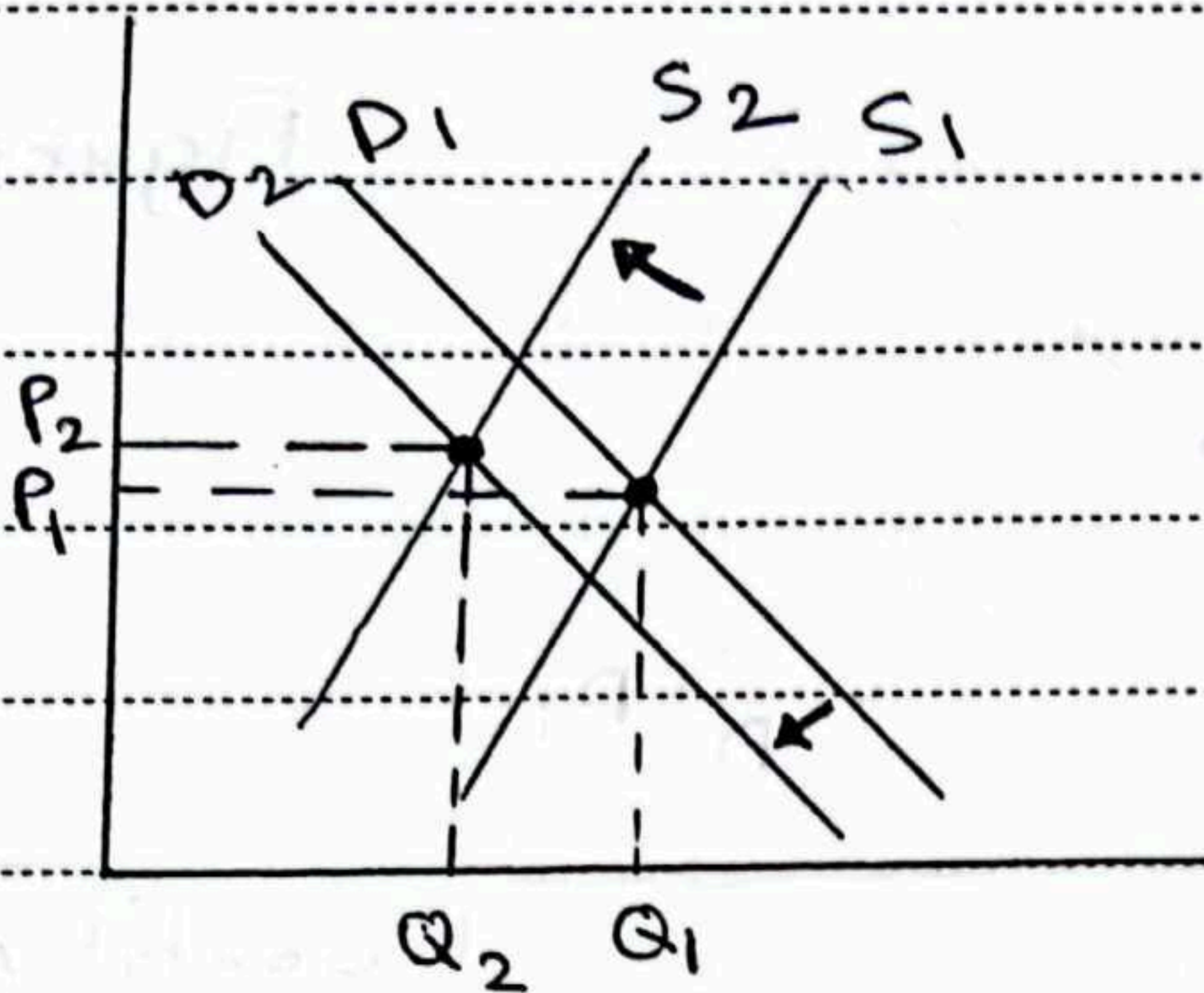


Question 1

(b) Country B has the absolute advantage because simply, in the same amount of time, Country B can produce more t-shirts and trousers than Country A can.

(c) Since there is an artificial crisis, supply of rice will fall and so supply curve will shift left. Households suffered from income loss and reduced rice consumption which means demand also fell. Demand curve will shift left. The information states "reduction in consumption was less substantial than the impact of artificial crisis". This indicates that shift in demand is less than shift in supply.





Thus, price rises from  $P_1$  to  $P_2$  and quantity falls from  $Q_1$  to  $Q_2$  so the answer is (iii).

### Question 3

$$A) \quad P = 250 - 2Q_d$$

$$P = 90 + 3Q_s$$

At equilibrium,  $Q_d = Q_s$ ,

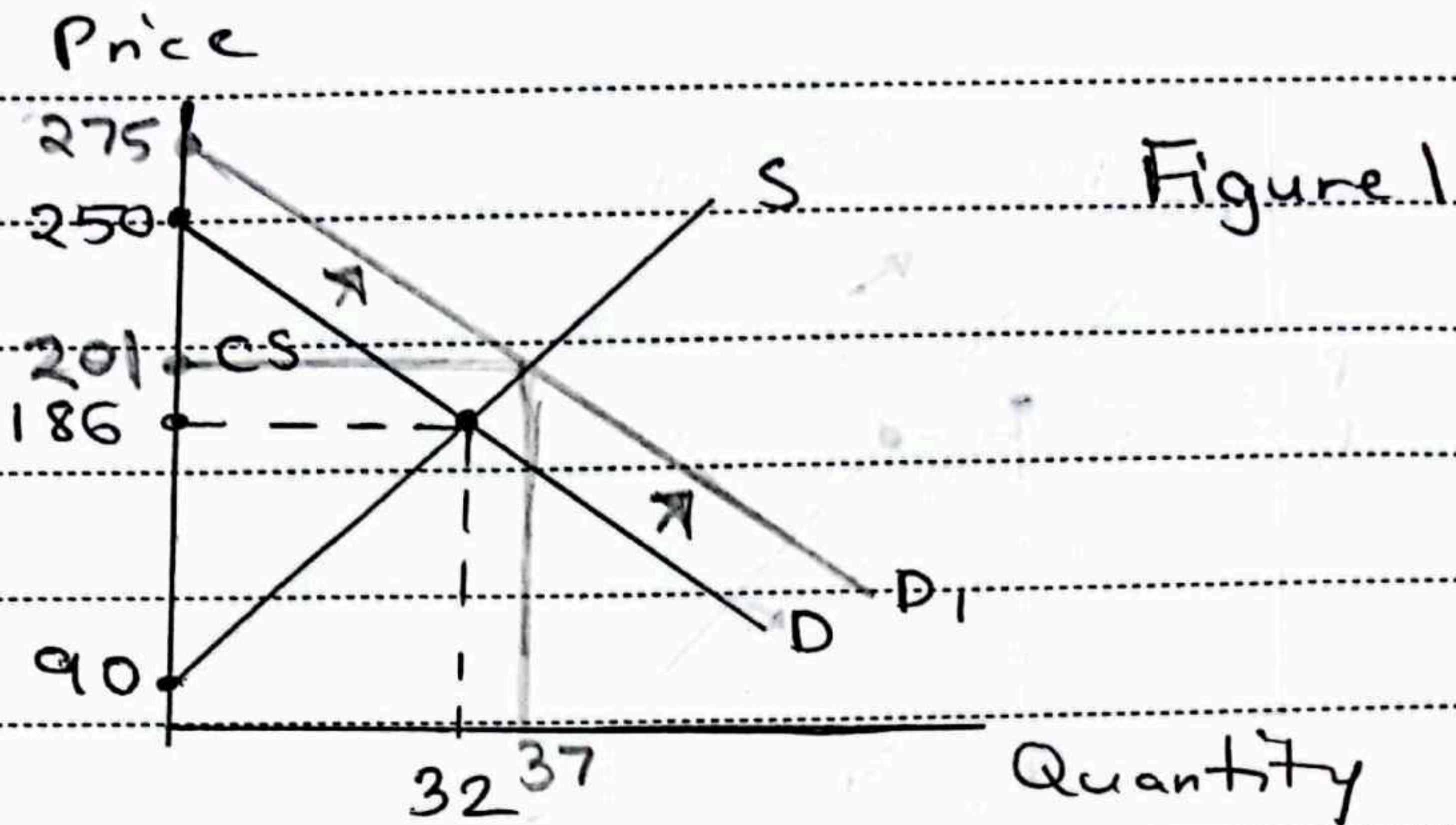
$$250 - 2Q_d = 90 + 3Q_s$$

$$-5Q = -160$$

$$Q = 32$$

$$P = 90 + 3(32) = 186$$





When  $Q_d = 0$ ,

$$P = 250 - 2(0) = 250$$

When  $Q_s = 0$ ,  $P = 90 + 3(0) = 90$

$$\text{Consumer Surplus} = \frac{1}{2} \times b \times h$$

$$= \frac{1}{2} \times 32 \times (250 - 186)$$

$$= 1024 \text{ (Ans.)}$$



B) New:  $P = 275 - 2Q$

Refer to the previous diagram

Figure 1. New demand curve is  $D_1$ .

When  $Q_d = 0$ ,  $P = 275$

At new equilibrium,

$$275 - 2Q = 90 + 3Q$$

$$-5Q = -185$$

$$Q = 37$$

$$P = 275 - 2(37) = 201$$

$$\text{New CS} = \frac{1}{2} \times b \times h = \frac{1}{2} \times 37 \times (275 - 201)$$

$$= 1369 \text{ (Ans.)}$$

The only answer is (ii) since new CS is 1369.



c) Percentage

$$\text{Change in C.S.} = \frac{\text{New CS} - \text{Old CS}}{\text{Old CS}} \times 100$$

$$= \frac{1369 - 1024}{1024} \times 100$$

$$= 33.69 \sim 34.1$$

∴ Answer is True.