DATE / / SU MO TU WE TH FR SA NOTES

Eco101 - MidTerm - Set 3/2/1

Question 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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ECo101 - Midterm - Set 2

Question 1

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

(a) For Country 2,

24 Trousers = 16 T-shirts

$$1 \text{ Trouser} = \frac{1}{24} \times 16$$

$$= 0.67 \text{ T-shirts (Ans.)}$$

(b) For Country 1,

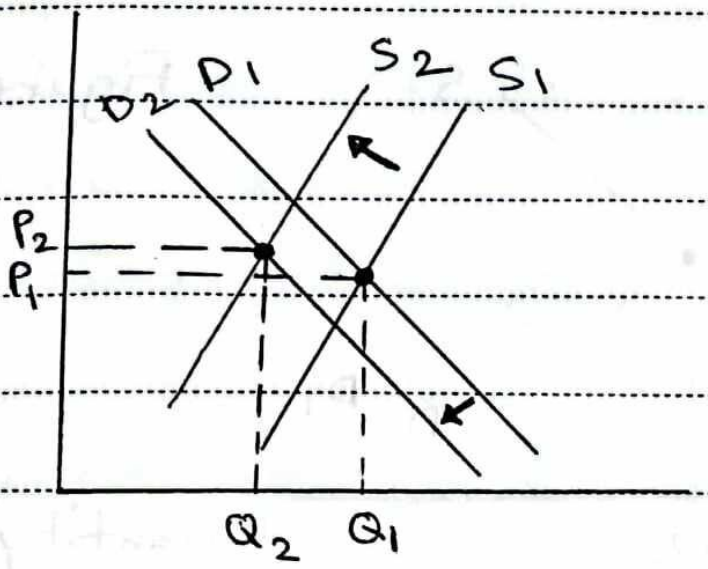
15 Trousers = 12 T-shirts

$$1 \text{ Trouser} = \frac{1}{15} \times 12$$

$$= 0.8 \text{ T-shirts}$$

From (a), the opportunity cost of producing Trousers in Country 2 is 0.67 T-shirts while that in Country 1 is 0.8 T-shirts. Since the opportunity cost is lower in Country 2, Country 2 or Country B has the comparative advantage (Ans.)

(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) $P = 250 - 2Qd$

$P = 90 + 3Qs$

At equilibrium, $Qd = Qs$,

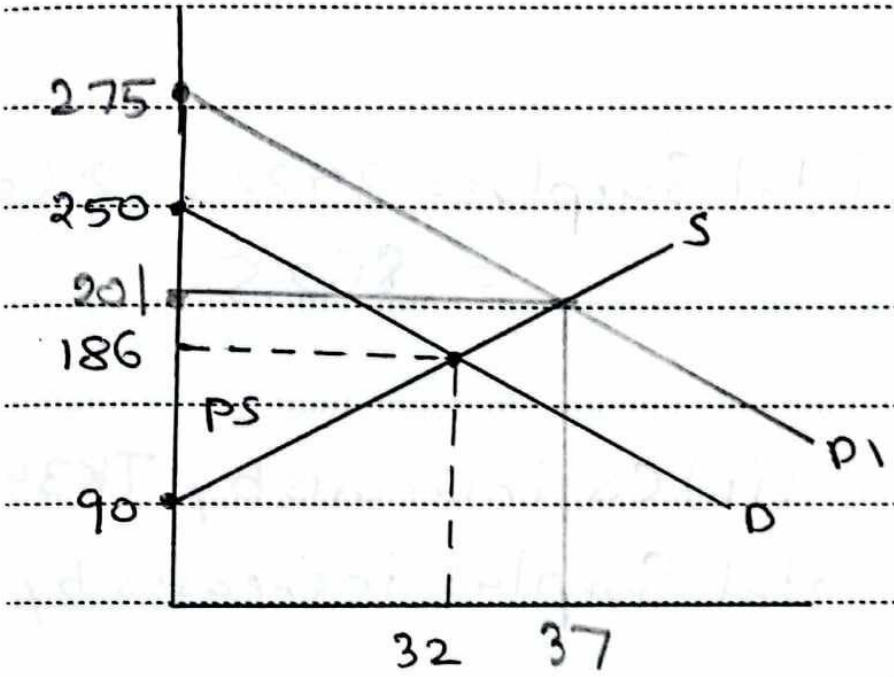
$250 - 2Qd = 90 + 3Qs$

$-5Q = -160$

$Q = 32$

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

Question 3



A)

When $Qd = 0$, $P = 250 - (0)2 = 250$

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

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

$= \frac{1}{2} \times 32 \times (186 - 90)$

$= 1536$ (Ans.)

B) At new equilibrium, (D_1)

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

$$-5Q = -185$$

$$Q = 37$$

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

Old C.S. $= \frac{1}{2} \times 32 \times (250 - 186) = 1024$

New C.S. $= \frac{1}{2} \times 37 \times (275 - 201) = 1369$

Change in C.S. = New C.S. - Old C.S.

$= 1369 - 1024$

$= 345$

Old Total Surplus $= 1536 + 1024 = 2560$

New P.S. $= \frac{1}{2} \times 37 \times (201 - 90) = 2053.5$

New Total Surplus $= 1369 + 2053.5 = 3422.5$

Change in Total Surplus = 3422.5 - 2560

= 862.5

∴ Answer is (ii) CS increases by Tk345 and (iv) Total Surplus increases by Tk. 862.5.

c) % change in CS. = $\frac{\text{New CS} - \text{Old CS}}{\text{old CS}} \times 100\%$

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

= 33.69 ~ 34%.

Answer: False.