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

Eco101-midterm - Set 1

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

a) For Country 1,

12 T-shirts = 15 Trousers

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

$$= 1.25 \text{ Trousers (Ans)}$$

b) For Country 2,

16 T-shirts = 24 Trousers

$$1 \text{ T-shirt} = \frac{1}{16} \times 24$$

$$= 1.5 \text{ Trousers}$$

Since Country 1 has lower opportunity cost in T-shirt production, Country 1 /A has comparative advantage in Tshirts.

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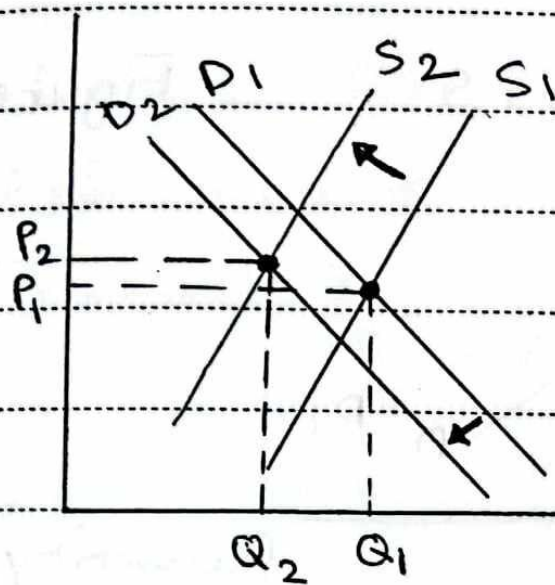
Thus, price rises from P_1 to P_2 and quantity falls from Q_1 to Q_2 so the answer is (iii).

Question 3
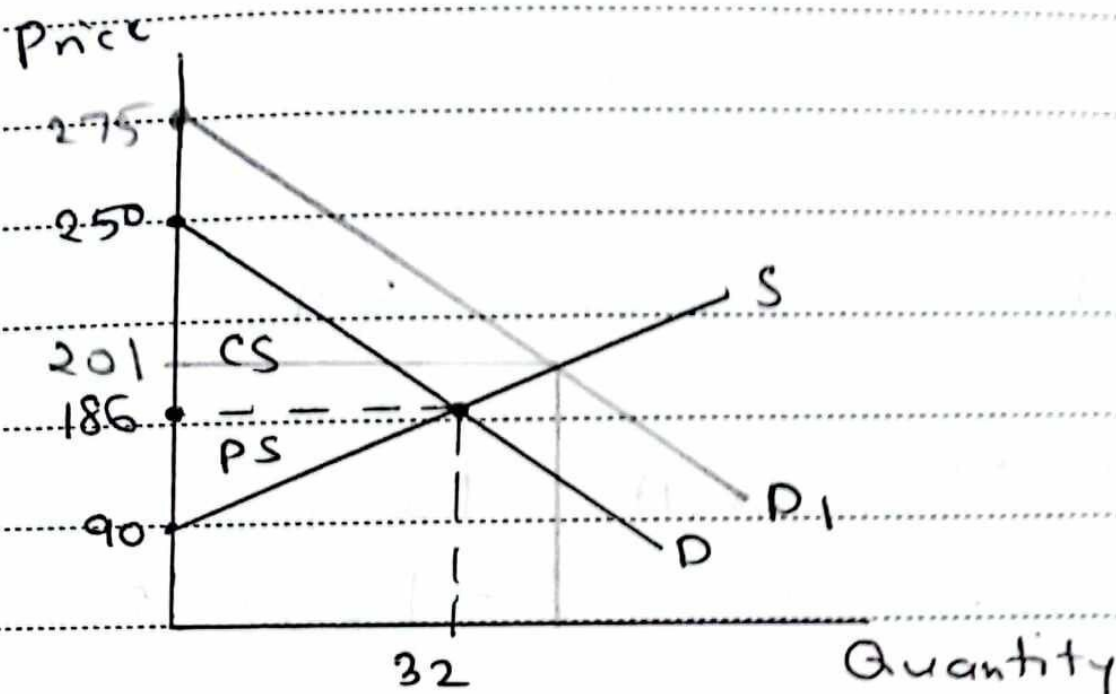
A) $P = 250 - 2Q_d$

$P = 90 + 3Q_s$

At equilibrium, $Q_d = Q_s$,

$250 - 2Q_d = 90 + 3Q_s$

$-5Q = -160$

$Q = 32$

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

Question 3

At $Qd = 0$, $P = 250 - Q(0) = 250$

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

A)

Total Surplus $=$ CS $+$ PS

$$= \left(\frac{1}{2} \times b \times h\right) + \left(\frac{1}{2} \times b \times h\right)$$

$$= \frac{1}{2} \times 32 \times (250 - 186) + \frac{1}{2} \times 32 \times (186 - 90)$$

$$= 1024 + 1536 = 2560 \quad (\text{Ans})$$

B) At new equilibrium (DI),

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

$$-5Q = -185$$

$$Q = 37$$

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

Old CS from A = 1024

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

$$= 1369$$

Change in CS = 1369 - 1024 = 345

∴ Answer is (i) CS increases by TK345.

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

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

$$= 33.7 \sim 34\%.$$

∴ Answer is False.