
# UNIVERSITY OF ASIA PACIFIC

## Department of Computer Science & Engineering

**Course Title** – Economics.

**Course Code** – ECN-201.

**Topic** – ASSIGNMENT -01

**SUBMITTED BY**

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Section – A

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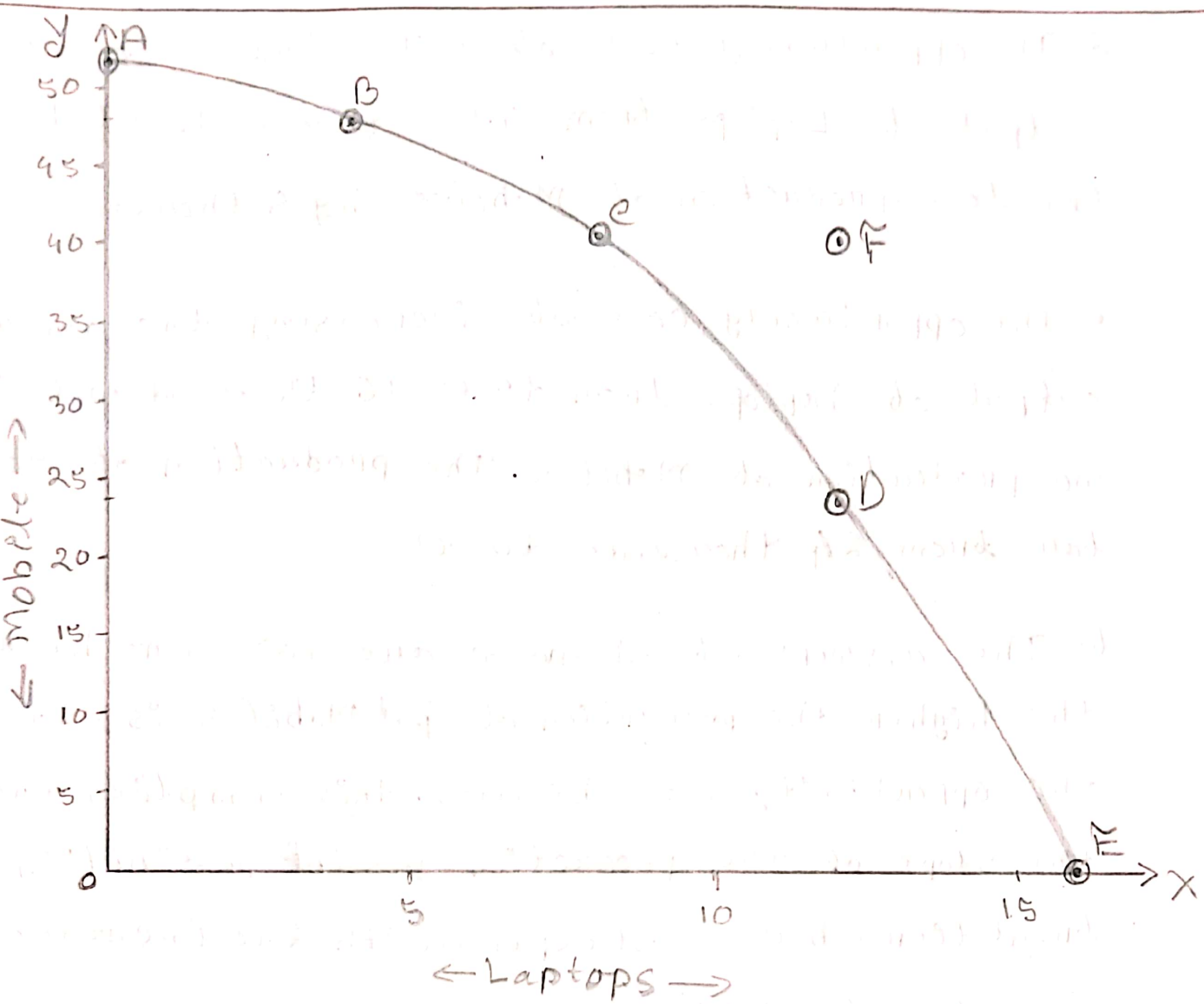



b) Netherlands can't produces 12 thousand ob laptops and 40 thousand ob mobile because this point lies outside production possibility bronttier.

c) Ib Netherland wants to produce 6 thousand ob laptops and 30 thousand ob mobile, theycan attain productive ebbeciency. Because the point lies inside the production possibility bronttier.

d) The opportunity cost of increasing the annual output of Laptops from 4 to 8 thousand, will be the less production of Mobiles by 8 thousand.

e) The opportunity cost of increasing the annual output of Laptops from 12 to 16 thousand will be no production of Mobiles. The production of Mobiles ball from 24 thousands to 0.

b) The answers of d and e are not same because the higher the production of Mobiles is, the higher the opportunity cost becomes. This implies that, the slope of the production possibility frontier becomes steeper with the increase in the production of Mobiles.

17) Use a diagram to illustrate how each of the following events affects the equilibrium price and quantity of pizza

a) The price of mozzarella cheese rises.

b) The health hazards of hamburgers are widely publicized.

c) The price of tomato sauce falls.

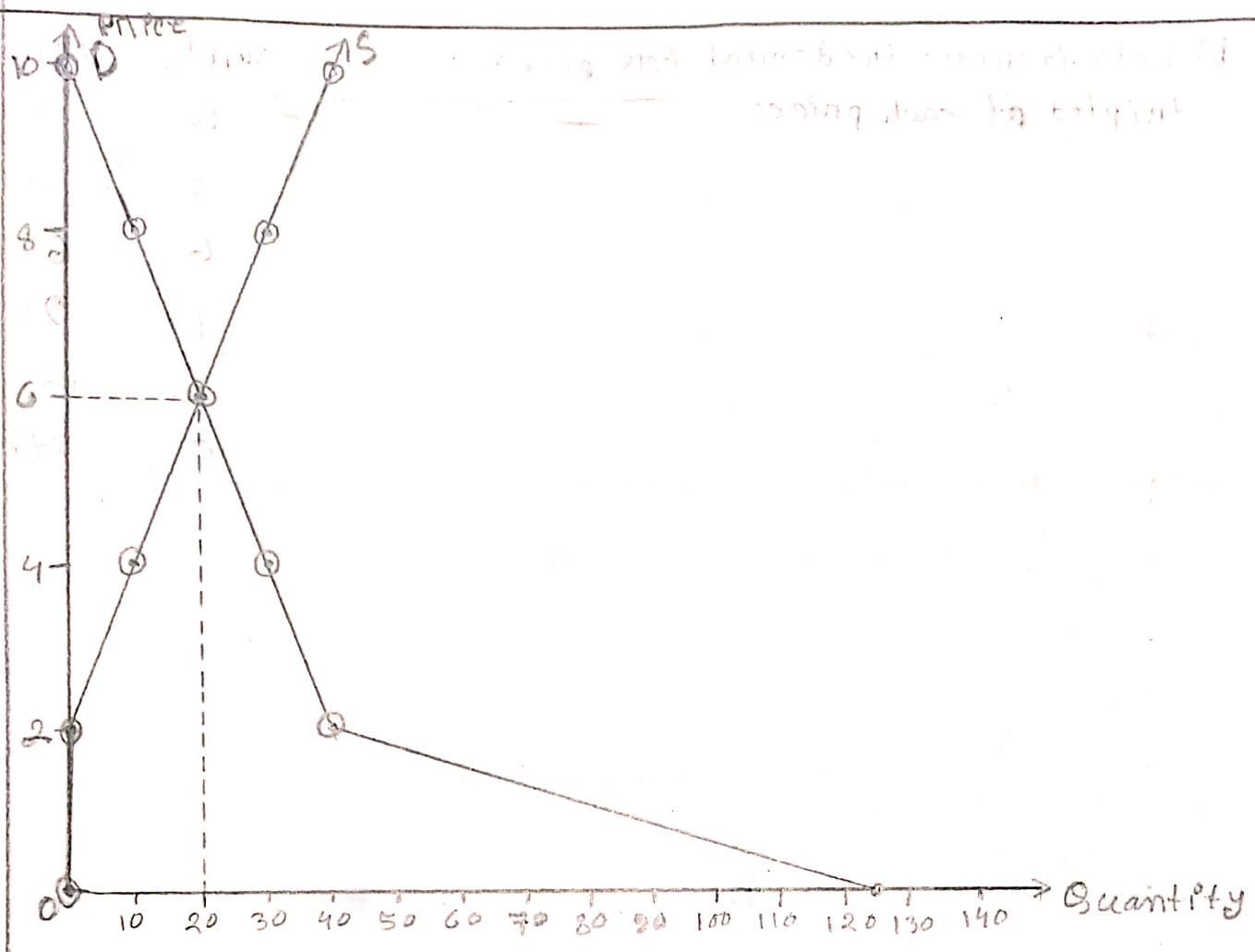
d) The incomes of consumers rise and pizza is an inferior good.

e) Consumers expect the price of pizza to fall next week.

Ans

| NO. | possible Effects on Demand, supply | Equilibrium price | Equilibrium quantity |
|---|---|---|---|
| | | | |
| | | | |
| a) | Decrease in supply | Increase | Decrease. |
| b | Increase in demand | Increase | Increase |
| c | Increase in supply | Decrease | Increase. |
| d | Decrease in demand | Decrease | Decrease |
| e | Decrease in demand | Decrease | Decrease |

(1)

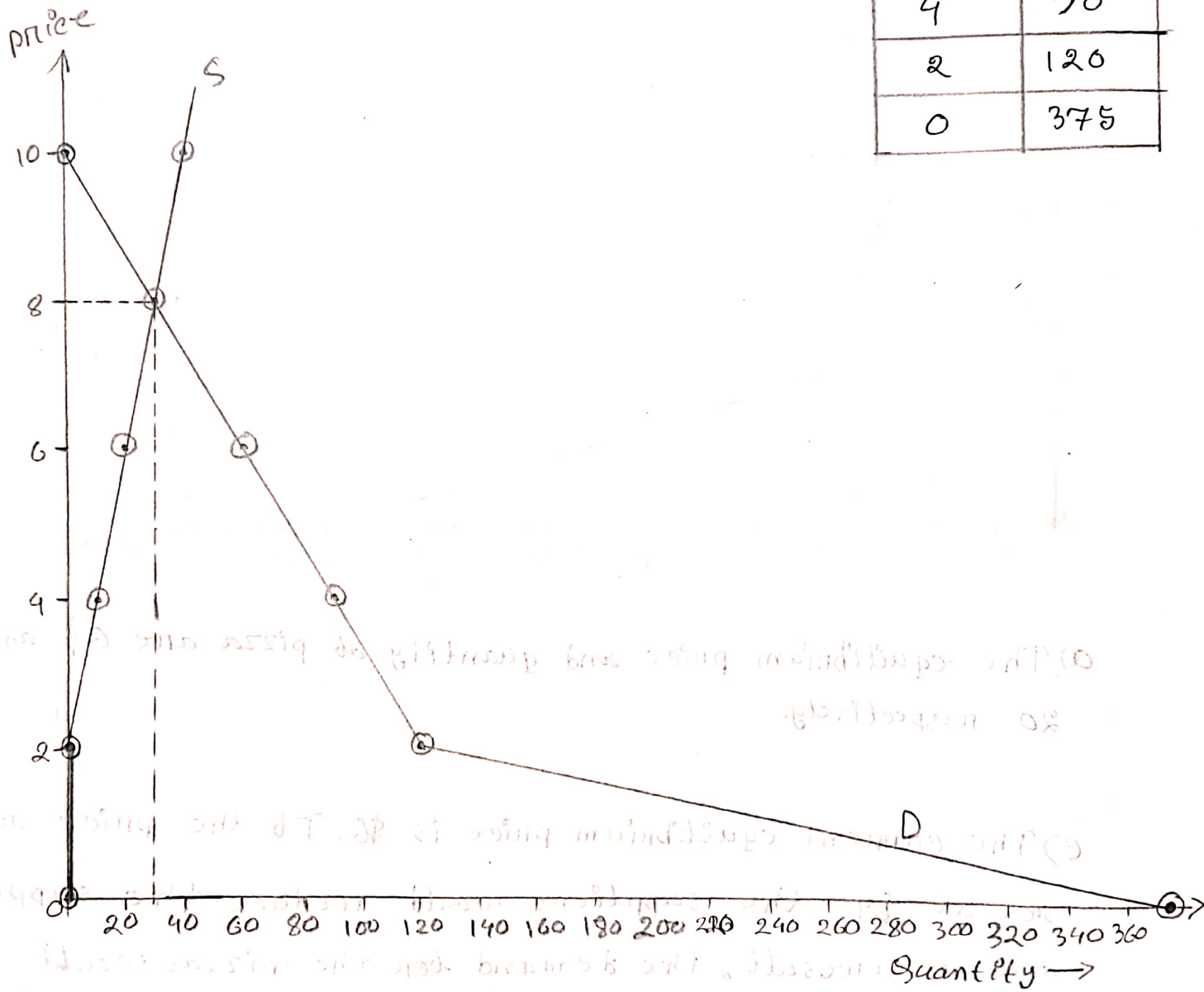



a) The equilibrium price and quantity of pizza are 6$ and 20 respectively.

c) The current equilibrium price is $6. If the price were set at $4, the suppliers would reduce the supply and as a result, the demand for the pizzas would increase. In this case, due to increased demand, the price would eventually rise to the equilibrium price of $6 where both the demand and the supply would remain equal.

b) Let's increase the demand bore pizza tripled at each price:-

| supply | Demand |
|---|---|
| 10 | 0 |
| 8 | 30 |
| 6 | 60 |
| 4 | 90 |
| 2 | 120 |
| 0 | 375 |




The new equilibrium point will be 8 $ and 30 , price and quantity respectively. But the new equilibrium point will make pizza consumers worse off since they have to pay more than before. But the consumers will increase from 20 to 30. This would make the pizza makers better off by helping the sell pizza at higher price from $6 to $ 8

3) a)

| Consumer | Willigness to pay ($) | price paid ($) | Individual consumer surplus. |
|---|---|---|---|
| 1 | 40 | 29 | 11 |
| 2 | 35 | 29 | 6 |
| 3 | 30 | 29 | 1 |
| 4 | 25 | -- | -- |
| 5 | 20 | -- | -- |
| 6 | 15 | -- | -- |
| Total Consumer Surplus | | | 18 |

b)

| Consumer | Willigness to pay ($) | price paid ($) | Individual consumer surplus. |
|---|---|---|---|
| 1 | 40 | 19 | 21 |
| 2 | 35 | 19 | 16 |
| 3 | 30 | 19 | 11 |
| 4 | 25 | 19 | 6 |
| 5 | 20 | 19 | 1 |
| 6 | 15 | -- | -- |
| Total Consumer surplus | | | 55 |

c)

Changes of individual consumer surplus:

| Consumer | price at $ 29 | price at $ 19 | Consumer surplus change |
|---|---|---|---|
| 1 | 11 | 21 | 10 |
| 2 | 6 | 16 | 10 |
| 3 | 1 | 11 | 10 |
| 4 | -- | 6 | 6 |
| 5 | -- | 1 | 1 |
| 6 | -- | -- | -- |

The total consumer surplus will increase by $37 ($55 - $18).

a Here $Q_2 = 12,000$ $P_2 = 1,100$

$Q_1 = 8,000$ $P_1 = 900$

The percentage change in quantity ~~demanded~~ supplied of computers

$$\frac{Q_2 - Q_1}{(Q_1 + Q_2)/2} \times 100 = \frac{12,000 - 8,000}{(12,000 + 8000)/2} \times 100 = 40\%$$

The percentage change in price:-

$$\frac{P_2 - P_1}{(P_2 + P_1)/2} \times 100 = \frac{1100 - 900}{(1100 + 900)/2} \times 100 = 20\%$$

so, price elasticity of supply $= \frac{\%\text{ change in quantity ~~demanded~~ supplied}}{\%\text{ change in price}}$

$$= \frac{40\%}{20\%} = 2$$

(price elastic supply)

b if $Q_2 = 12,000 + 1,000 = 13,000$ $P_2 = 1,100$

$Q_1 = 8,000 + 1000 = 9000$ $P_1 = 900$

The percentage change in quantity supplied: $\frac{(Q_2 - Q_1)}{(Q_1 + Q_2)/2} \times 100$

$$= \frac{13,000 - 9,000}{(13,000 + 9000) \div 2} \times 100$$

$$= 36.36\%$$

so, price elasticity of supply $= \frac{36.36\%}{20\%} = 1.81$ (price elastic)

so if the firms produce 1,000 more computers at price $1,100, the price elasticity of supply will be less than part "a". (2 > 1.81).

c) $Q_2 = 12000 + (12000 \times 20\%)$ $P_2 = 1,100$

$= 14400$

$P_1 = 900$

$Q_1 = 8000 + (8000 \times 20\%)$

$= 9600$

∴

So, the percentage change in quantity supplied $= \frac{Q_2 - Q_1}{(Q_1 + Q_2) \div 2} \times 100$

$= \frac{14400 - 9600}{(14400 + 9600) \div 2} \times 100$

so, the price elasticity of supply $= \frac{40\%}{20\%} = 40\%$

$= 2\%$ (price elastic)

if the quantity supplied increased by 20%, the price elasticity of supply will remain same as part "a".