Economics 101

Section - 11

Assignment 2

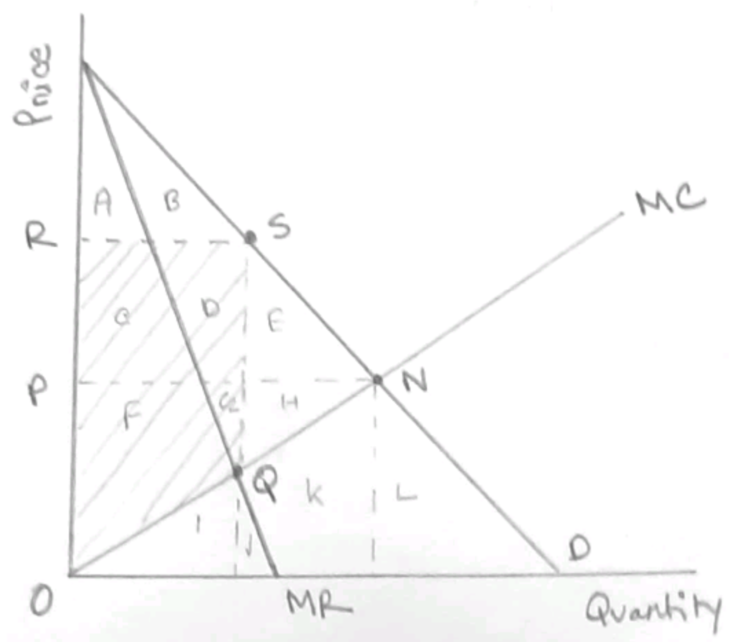
Marks : 15

Eshrar Sharmin Rana
ID : 24104266

Tania Rafiq
ID : 24104277

Udoy Saha
ID : 23341134

Ans. no-1 (a)

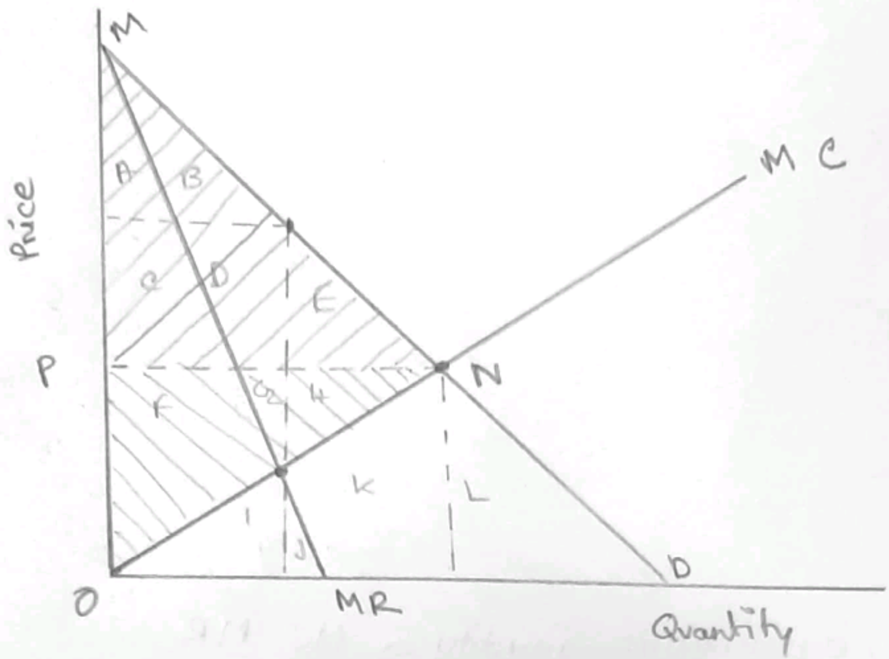


In Monopoly, equilibrium quantity → MC = MR

At point 'Q', MC = MR. Reflecting the point 'Q' to the Demand line, 'S' is the equilibrium price

∴ Producer Surplus = RSQO = Area (C + D + F + G)

Ans.no-1(b)

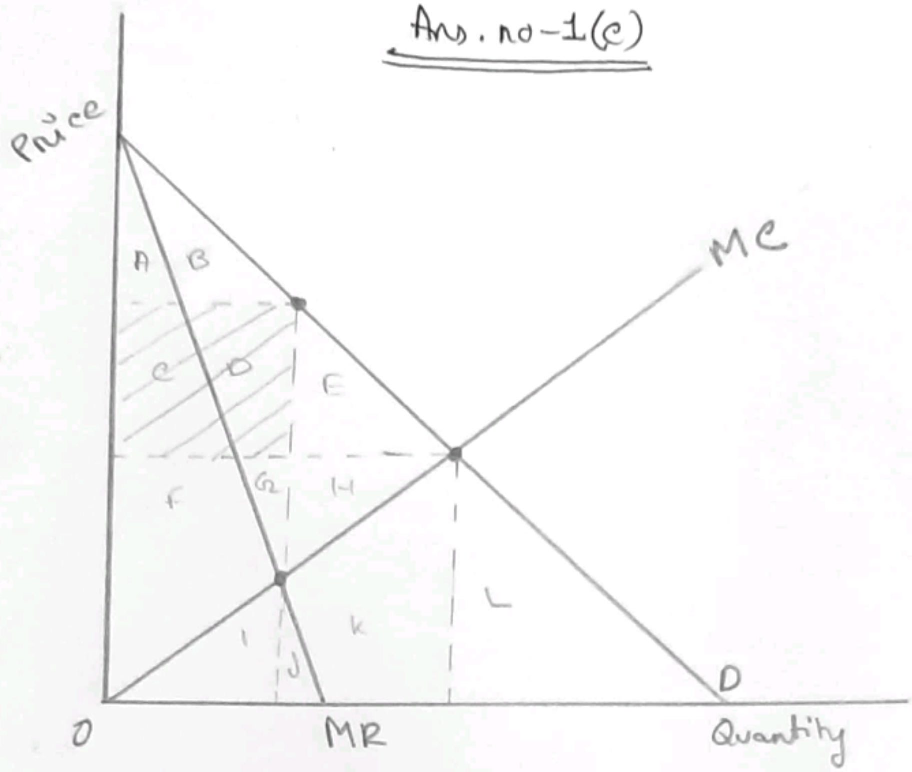


For perfectly competitive market, MC=D is the point for market equilibrium price and quantity. From the graph, 'N' is the point.

∴ Producer Surplus = ΔNPO = Area (F+G+H)

∴ Consumer Surplus = ΔNPM = Area (A+B+C+D+E)

Ans. no-1(c)



For market equilibrium in perfect competition, Consumer surplus would be A+B+C+D+E

But in Monopoly, Consumer surplus = A+B

So, Consumer loses = C+D+E

At the same time, Producer surplus in Monopoly = C+D+F+G

So, C+D goes from Consumer to Producer

Lastly, E from Consumer and H from Producer becomes deadweight loss.

So, it can be said that, among the two markets, perfect competition is more efficient due to not introducing any deadweight loss.

Q2 a)

As we know,

$Q_d = Q_s$

$P = 3000 - 6Q$

$P = 200 + Q$

$3000 - 6Q = 200 + Q$

$\therefore 6Q + Q = 3000 - 200$

$7Q = 2800$

$Q = \frac{2800}{7} = 400$

$S \Rightarrow P = 200 + Q$

$\therefore 200 + 400 = 600$

The equilibrium quantity is 400 units and the equilibrium price is 600 BDT.

Q2

b)

Profit maximising output $\Rightarrow MC = MR$

$\therefore MC = P$

$\Rightarrow 10q + 2 = 600$

{From "a", $P = 600$}

$\Rightarrow q = \frac{600-2}{10} = 59.8$

Since the firm cannot produce a fractional chicken

$q \approx 60$

$\therefore$ Profit $= TR - TC$

$= (P \times q) - (200 + 5q^2 + 2q)$

$= (600 \times 60 - (200 + 5 \times 60^2 + 2 \times 60)$

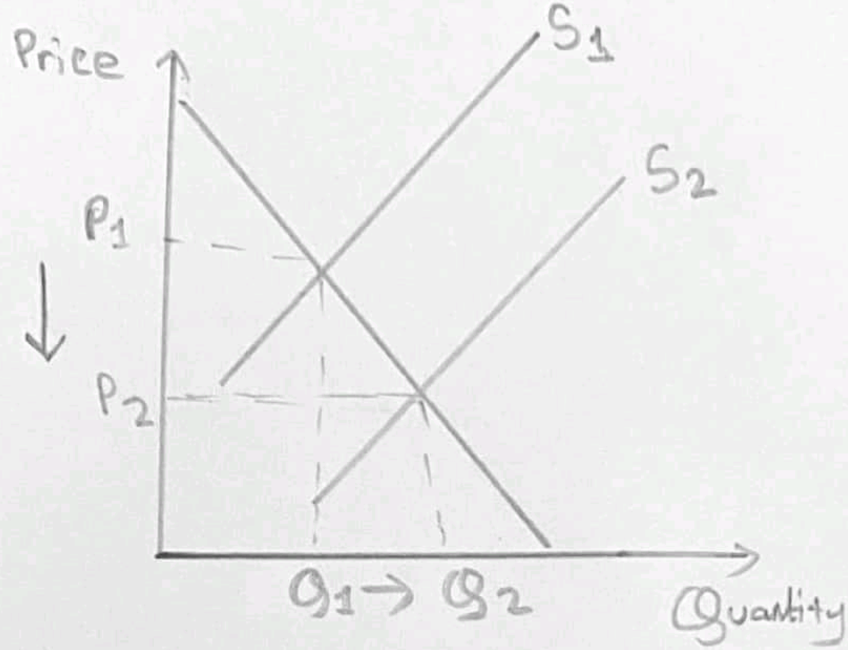
$= 36000 - 18320$

$= 17680$ (Ans)

So, the seller's profit at this market equilibrium is 17,680 BDT.

Q2

c)



The long run, is the period of time where all factors of production can be adjusted, allowing firms to change their scale of operations and adjust to market conditions freely. From "b" we can see that there is some Economic Profit incurring. If this goes on, the ~~ecomy~~ economy will see more firms entering into the market.

As more firms enter into the market, the supply increases and the supply curve shifts to the right (S1 to S2), resulting in an increased quantity in a lower price.

In addition, the price decreases upon new firms entering into the market (P1 to P2), the economic profit will derease. New firms entering into the market goes on until the economic Profit becomes zero.