**Essay Question 63**

**(a) Explain what is meant by productive and allocative efficiency. (10)**

**Introduction**

•Definition of production and allocative efficiency

•State that both these notions will influence the welfare of the economy, affecting the aim of the government in achieving social optimization of resource allocation

**Main Body**

1) Explain how the notion of production efficiency is attained and the effect when it is not attained

2) Explain how the notion of allocative efficiency is attained and the effect when it is not attained

Allocative efficiency can be defined as the condition where resources are collocated where it is impossible to make someone better off without making someone else worse off. Production efficiency can be defined as the situation where the cost of production is attained at a minimum level at the respective level of output. Both these notions will influence the welfare of the economy, affecting the aims of the government in achieving social optimization resource allocation.

1. Production efficiency can be attained when the firms operates at the minimum average cost of production at the level of output that the firm is producing. In the short run, this is not feasible for the firms in the imperfect market structure but the firms are able to do so in the long run when they attain production equilibrium based on profit maximization

In the short run, the firm in the perfect competition market structure will produce at the minimum average cost of production at the production equilibrium based on profit maximization level where marginal revenue is equal marginal cost (MC=MR) as the firm can access to perfect information to adjust the production level to minimum level.

As for the long run, the firm can attain internal and external economies of scale to lower the average cost of production and thus, the average cost of production at the respective level of the economy is at the lowest level when they attain production equilibrium based on profit maximization compared to short run cost condition.

As seen from the diagram, the long run average cost at the LRAC for the respective level of output will be lower than the average cost of production in the short run as seen at Q1, Q2 and Q3 except for level at Q2.

As for allocative efficiency, it is attained at the production cost where the price is equal to the additional cost of producing an additional unit of output (P=MC). At this level of production, there is maximization of the net benefit gain where total benefit represented by the total revenue exceeds the total cost of production.

If P > MC, it means that the-price consumers are willing to pay for the additional unit exceeds the value they placed on the alternative goods forgone. Therefore, economic welfare would be increased if extra units were produced. There is presently an underproduction of this good.

If P < MC, it means that consumers5 valuation of the additional unit is below that of the alternative goods sacrificed. Hence, it would make sense not to produce that additional unit and instead reallocate the resources to produce some other goods which consumers value more. There is presently an overproduction of this good.

This is only feasible in the perfect market condition whereby the price is set at the level equal marginal cost where the firm attains profit maximization. As seen from the diagram, the industry is maximizing the net social benefit gain when there is market equilibrium seen from the shaded portion in diagram 1 when the firm attains production equilibrium.

The notion of allocative efficiency is not attained for firms in the imperfect market structure when the firms attain production equilibrium based on profit maximization where marginal cost is equal to marginal revenue. At this level of production, the price is higher than the marginal cost of production given the condition of downward-sloping MR and AR.

Cost/ Revenue

MC

P0

P1

Quantity

Qm

Qs

MR

AR

As seen from the diagram 2, the firm’s production equilibrium at profit maximizing level where MC=MR as price does not equate to P=MC and thus, underproduction will occur as deadweight loss arises before Qm and Qs.

**Conclusion**

 **(b) Assess the view that the firm in the imperfect market structure is considered efficient when it is able to conduct profit maximization. (15)**

**Introduction**

Imperfect market structures are market structures that have imperfect market information and immobility of factors of productions. The firms under these forms of market structure possess certain degree of market power which will affect the production equilibrium that will determine the price level set by the firm. Regardless of the types of market structures, the firm will base on the notion of profit maximization to determine production equilibrium when the firms aim to maximize profit. As to whether these firms are efficient or not, the assessment should be made in respect to allocative efficiency, production efficiency, dynamic efficiency and x-efficiency.

**Main Body**

**1. Explain the various types of market structures (under imperfect market)**

Under the imperfect market structures, it can be classified as monopolistic, oligopolistic or monopolistic competitive market where the industry may have one firm, few firms or many firms. For the monopoly, the producers of the firm homogeneous and there is high degree of market power while the product of the I firm in the oligopoly is classified as homogeneous or differentiated and has strong market powers. However, the product of the firms in the monopolistic market is classified as differentiated and there is small degree of market power.

**2. Explain how the firms in the imperfect market is affected by the market power of the firms**

Due to the influence of the market power, the firms in the imperfect market structure will have a downward-sloping MR and AR, indicating that the firm is capable of practicing price setting whereby the firm can either decrease price to increase quantity demanded or increase price but faced a lower level of quantity demanded. For the monopoly and oligopoly, the market power is derived from the barriers to entry while the market power for the monopolistic competition is based on product differentiation.

**3. Explain how the price level is determined by the production equilibrium based on profit maximization**

Based on this downward-sloping MR and AR, the firms in the imperfect market can set the price level when the production equilibrium is attained; abiding to the profit-maximising rule. Under this rule, the firm will increase production when the MR is greater than the MC since additional net profit can be earned and decrease the production level when the MR is less than MC since additional net loss may be incurred. Thus, it will attain production equilibrium at the level of output where MR is equal to MC.

Price

MC

AC0

P0

P1

Qty

AR

MR

Qm

Qs

As seen from the diagram, it can be observed that the MR and AR are downward-sloping while the MC is upward-sloping as there is a higher rate of utilization of resource capacity. The production equilibrium is set at the quantity level of Q0 while the price level is set at P0.

On the assessment whether the firms are efficient or not, the basis is made on the basis of productive efficiency, allocative efficiency, dynamic efficiency and x-efficiency. For production efficiency, the firms in the imperfect market structure will not be able to attain production efficiency in the short run as the production equilibrium at profit-maximising level where MC=MR is at the excess capacity level of production where AC can be decreased further with increase in production. However, in the long run, internal and external economies of scale can be attained and the average cost can be lowered. As such, the firms under imperfect market can attain production efficiency since the average cost of production is lowered at the respective level of production.

For allocative efficiency, the firms under imperfect market structure are unable to attain since the firms are unable to produce at the social equilibrium where price is equal marginal cost (P=MC) when the firms seek to achieve production equilibrium based on profit maximisation. As the MR and AR are downward-sloping due to the influence of market power, there will be under-production and thus, deadweight loss will arise. As seen from the diagram, the value of deadweight loss is identified from the shaded portion between Qm and Qs.

As for dynamic efficiency, the firms in the monopolistic and oligopolistic market structure will be able to reap it since they can have a larger financial capacity and can make supernormal profit to fund research and development (R&D). This will allow the firm to reap dynamic efficiency which will lead to lower cost of production and improvement in the quality of products. This will enable the firms to use the gain from dynamic efficiency to build barriers to entry to prevent competition in their market. However, the firms under monopolistic competition may not be able to reap such form of efficiency since they lack financial capability to do so.

Lastly, the level of x-efficiency will not be seen in the monopolistic market as the industry is not contestable when there is a monopoly. When there is no competition, there is complacency and the monopoly will not seek to increase efficiency to lower the cost condition. Consequently, cost of production will not be lowered and the level of x-inefficiency will surface in terms of the difference between the actual level of average cost and the lowest level of average cost the firm can attain.

**Conclusion**

The firm in the imperfect market structure will not be able to reap certain forms of efficiency but the size of production for the bigger firm will enable them to gain other forms of efficiency when the firms are based on profit maximization.