

MONOPOLY AND DISCRIMINATING MONOPOLY

Monopoly is the opposite situation of perfect competition. Monopoly is derived from two Greek words 'Mono and Poly'. 'Mono' means single and 'Poly' means seller. Hence, monopoly means single seller. Monopoly is a market structure where there is single seller of a product which has even no close substitutes. In case of monopoly there is only one producer or firm, so firm and industry becomes synonym to each other. Economists have defined monopoly in following ways :

According to **Chamberlin**, "Monopoly refers to the full control over supply."

As per **Henderson and Quandt**, "The term monopoly defines situation in which a single firm produces a commodity for which there are no close substitutes."

In our country, Indian Railways, Post office, Water works and Electricity Boards of states are good example of monopoly.

CHARACTERISTICS OF MONOPOLY

Following features of monopoly are clear from above analysis :

(1) Single Seller : Under monopoly, producer or seller of goods is single. There is lack of other producers or sellers. Monopolist has complete control over supply of commodity.

(2) Lack of Close Substitutes : Under monopoly, firm produces and sells goods, whose close substitute is not available in the market.

(3) Firm and Industry are Synonym of each other : There is no difference between industry and firm under monopoly. Firm is itself industry that is why, there is no difference between equilibrium of firm and industry. It is same, in the case of class room, if there is only one student then, the class and student are treated same.

(4) Closed Entry for New Firms : There are barriers or restrictions

on entry of new firms in both short-run and long-run. Actually monopoly exists only if new firms may not acquire the entry into the industry.

(5) Independent Price Policy : Monopoly firm adopts the independent price policy without getting affected by any other firm since there is sole producer of product. Thus, monopoly firm is price maker as price of commodity is fully under control of firm.

(6) Average Revenue and Marginal Revenue Curve : Average revenue curve and marginal revenue curve of monopoly firm is downward sloping from left to right as in diagram 1. Its reason is clear, that more goods are sold at low price. On its opposite, sell of goods reduces at price rise. Marginal revenue curve is below average revenue curve.

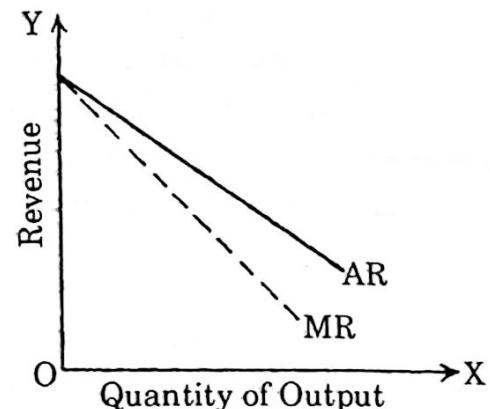


Diagram-1

(7) Large number of Buyers : In monopoly market, there is a sole producer or seller but number of buyers is large though not as large in perfect competition.

(8) Profit in Long-Run : Monopolist can earn abnormal profit even in long-run also, due to complete control on the supply.

(9) Price Differentiation possible : Price differentiation is possible in monopoly market or seller can sell his product to different buyer or at different places at different prices which is called discriminating monopoly.

MONOPSONY

The invention of word monopsony was made by Mrs. Joan Robinson. Here, Mono means single and psony means purchaser so in case of it only one buyer of the product will prevail into the market. Monopsony refers to market where there is only one buyer of a commodity or service. Monopsony is such firm or purchasing agency who purchases whole supply of any commodity or service alone. There is only one buyer in monopsony but sellers may be more than one. Example of monopsony can be single Sugar factory in any production area where buyer of sugarcane is single but sellers are large in number. Monopsony has following features :

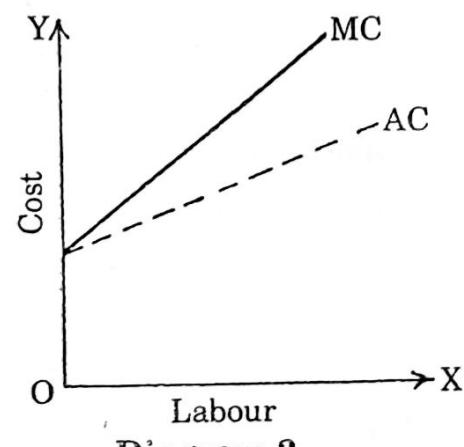


Diagram-2

Diagram-2

- (1) There is only one buyer of commodity or service.
- (2) If there are other buyers, they are uninfluential or insignificant.
- (3) There is complete control of buyer over prices since he is the single buyer.
- (4) Buyer is in position to determine price of goods or service to be purchased.
- (5) Both marginal cost (MC) and average cost (AC) are rising in monopsony. As shown in diagram 2 that MC and AC curves of monopsonist are rising. Or higher wages has to pay in order to attract more labours however, MC curve is always above AC curve.

CLASSIFICATION OF MONOPOLY

Monopoly has following classification on different basis :

(a) On the Basis of Ownership : Monopoly can be of two types, on the basis of ownership-private and public. Private ownership monopoly refers to firm whose owner is any individual person and whose aim is maximisation of profit. In public monopoly, ownership of firm lies in Government hand whose main motive is obtaining public welfare and growth.

(b) On the Basis of Price : Monopoly can be of two types, on the basis of price also—normal and discriminated. In normal or general monopoly, monopolist charges same price from all his buyers whereas in discriminated monopoly, the firm charges different prices for his same product from different set of buyers.

(c) On the Basis of Entry : On the basis of entry also there are two types of monopoly—perfect and imperfect. Perfect monopoly is that market where there is no chance of entry of new firms in industry. In case of imperfect monopoly, the possibility of entry of new firms always exists in future.

(d) On the Basis of Area : Monopoly can be of three types on the basis of area - local, national and international. Local monopoly is limited to a small area whereas national monopoly is the area of monopoly spread across the nation and when such area is spread to various nations of world, it is called international monopoly.

CAUSES OF EMERGENCE OF MONOPOLY

It is a natural question that what are the causes of the origin of monopoly? Some main reasons are following, because of which monopolist is sole seller in market and competition does not exist :

(1) Centralisation of Raw Materials : When necessary raw materials required for production of any commodity comes under control of any one

firm, the rise of monopoly is certain. For example, most of the diamond mine are under ownership of Debeers Company of South Africa, hence his situation is of monopolist.

(2) Legal Protection : Some people also acquire monopolist situation by getting legal sanction though trademark, patent, copyright of that products.

(3) Need of Huge Capital : Few industries require huge capital like iron and steel industry, because of which small firms can not enter in these fields. These type of industries are established by big industrialists and they mostly get monopoly status in that particular region.

(4) Personal Skill : Doctors, advocates, teachers, actors etc. gain status of the monopoly in their areas through their personal skill and expertise.

(5) Goodwill : When any producer gets goodwill and reputation in production process of any commodity, the new producers get afraid of entering into such industry and monopoly arises.

(6) Cut Throat Competition : Sometime various firms make an organisation by collaboration, in order to prevent extensive competition, in such situation monopoly arises.

(7) Import-Export Policy of Government : Licences are issued by Government for foreign trade. When licence is sanctioned by Government to a single firm regarding import or export the monopoly tendency is encouraged. For example, due to Government policy, situation of State Trading Corporation (STC) and Minerals and Metals Trading Corporation (MMTC) has become like monopoly.

(8) Use of Secret Production Technique and Scarce Instruments : If any specific method or technique (know how) is used in production of a product, the monopoly condition arises as other firms are not knowing such method. Similarly when instrument required in production process are scarce, situation of monopoly arises.

(9) Ignorance and Laziness of the Buyers : In some cases, buyers do not have knowledge about substitute goods or due to laziness they don't buy substitute goods. Hence, a firm may get monopoly status due to lack of knowledge and laziness among buyers.

PRICE DETERMINATION UNDER MONOPOLY OR EQUILIBRIUM OF MONOPOLIST FIRM

Main motive of monopolist is to maximise his profit. Here, maximising profit does not refer to maximise profit per unit but to maximise total amount

of the profit. Maximising total profit, means, to maximise 'profit per unit \times quantity sold' so the monopolist intends to maximise quantity also.

With this concept two methods are used for price determination under monopoly :

- (1) Total Revenue and Total Cost method, and
- (2) Marginal Analysis method.

(1) Total Revenue And Total Cost Method : This method is also called **Marshallian Trial and Error** method. In this method, situation of maximum profit is identified by comparing total revenue (TR) and total cost (TC). Marshall also termed this profit as **Monopoly Net Revenue**. Monopoly Net Revenue is that quantity of profit which is left when total cost is subtracted by total revenue. According to total method the product quantity where the vertical distance is maximum between TR and TC, monopolist will get maximum profit and he would be in status of equilibrium.

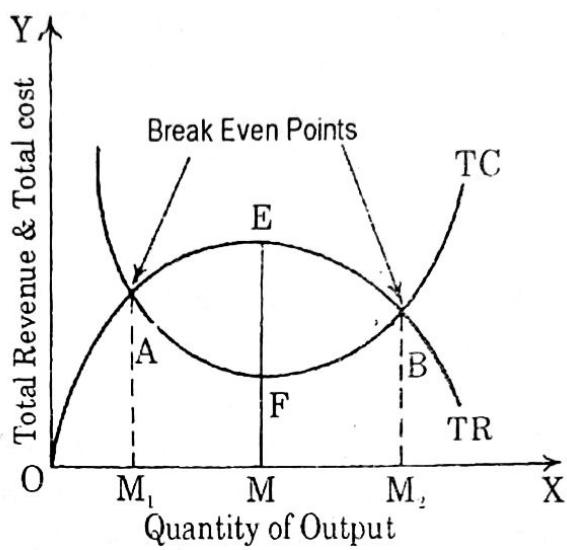


Diagram-3

In diagram 3, monopolist would have to bear loss if production is less than OM_1 or more than OM_2 because TC line is above TR. At A and B points, TR and TC are equal and these situations of zero profit are called Break Even Points (BEPs). It is profitable and safe zone for firm to get production between OM_1 and OM_2 but at OM production, difference between TR and TC is EF known as monopoly net revenue which is maximum. Firm gets maximum profit of EF at OM production and it is equilibrium point.

Criticism : This method is considered to be inconvenient and cumbersome because;

- (i) It is difficult to identify maximum vertical distance between TR and TC, and
- (ii) Price per unit can not be measured by this method.

Second method, which is marginal analysis method, is considered to be superior in comparison to first method.

(2) Marginal Analysis Method : This method is also called modern method, **Mrs. Joan Robinson Method** and marginal and average lines

method. This method was propounded by **Mrs. Joan Robinson**. According to her a monopoly firm should determine price of its product in order to maximize profit at point where demand of commodity (marginal revenue) and supply of commodity (marginal cost) are equal.

Demand side : Under monopoly, demand curve of commodity or average revenue (AR) curve of commodity is falling downward and marginal revenue curve (MR curve) is less than average revenue curve. Reason for downward sloping AR curve is that monopolist has to reduce price for selling large units of commodity. AR curve specifies that for selling more quantity of product its price has to reduce. In diagram 4, AR and MR curves have been shown. They both are falling but MR curve is always below AR curve.

Supply Side : A monopolist has almost full control over his product and its supply. Behaviour of cost curves in monopoly is same as in the perfect competition. In short-run, cost curves are U-shaped. In diagram 5, marginal cost (MC) and average cost (AC) curves have been shown rising after getting decline in short-run.

Long-run cost curves in monopoly are based on laws of returns. All three laws of returns, that is, diminishing, increasing and constant make different long-run cost curves which are shown in diagram 6. Under law of diminishing return, both MC and AC are rising and MC is above AC. In law of increasing return, both MC and AC curves are falling and MC is less than AC. In law of constant return, both MC and AC curves are same and parallel to x-axis.

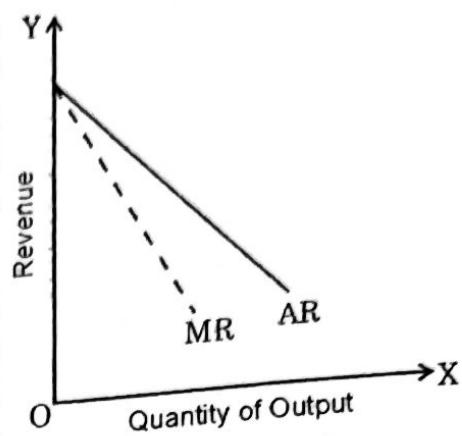


Diagram-4

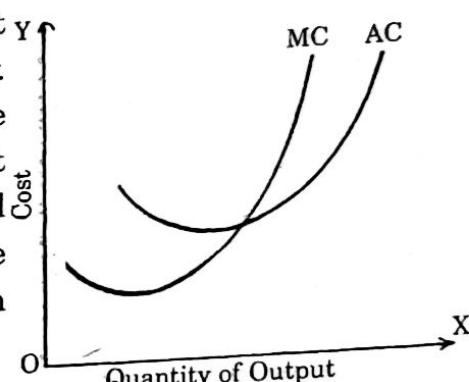


Diagram-5

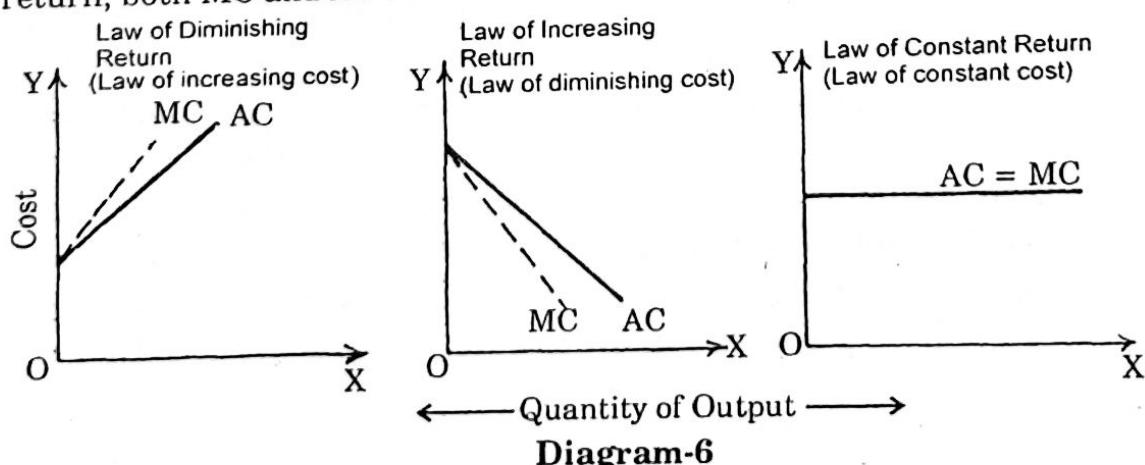


Diagram-6

As specified above that a monopolist should determine price at equilibrium point where (a) both marginal cost (MC) and marginal revenue (MR) are equal, and (b) MC intersects the MR from below. In this price determination time is very important that is why price determination in monopoly is studied under two heads :

- I. Monopoly price or equilibrium in short-run, and
- II. Monopoly price or equilibrium in long-run.

MONOPOLY PRICE OR EQUILIBRIUM IN SHORT-RUN

Time is too short in short-run that at demand increase or decrease of any commodity, firm can only increase or decrease its supply, within present production capacity. Change in production scale or size of plant is not possible. Thus, during short-run, monopoly price can be more, equal or less than average cost. As a result three situations : profit, zero profit and loss, are possible which are explained below :

(a) Situation of Profit : Monopolist would determine price and output where $MR = MC$. Later at this producing quantity, profit would be obtained by comparing average revenue (AR) and average cost (AC). It is clear from diagram 7, that at point E, MR and MC are equal. At this equilibrium point;

$$\text{Quantity of output} = OQ$$

$$\text{Price or Average Revenue (AR)} = AO$$

$$\text{Average Cost (AC)} = BO$$

$$\text{Profit per unit} = AO - BO = AB$$

$$\text{Total Profit} = OQ \times AB = ABCP$$

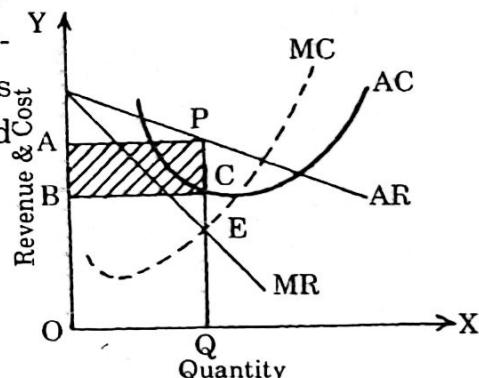


Diagram-7

(b) Situation of Zero Profit : Monopolist gets average revenue equal to average cost at less demand of commodity and he gets zero or normal profit. In diagram 8, monopolist gets zero profit. At point E, MR is equal to MC. At this equilibrium point;

$$\text{Quantity of output} = OQ$$

$$\text{Price or Average Revenue (AR)} = AO$$

$$\text{Average Cost (AC)} = AO$$

$$\begin{aligned}\text{Profit} &= AO - AO \\ &= \text{Zero}\end{aligned}$$

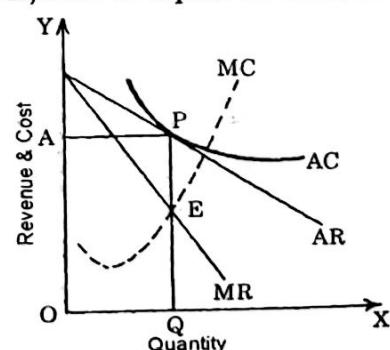


Diagram-8

(c) Situation of Loss : It is a common belief that monopolist does not have to bear loss but, it is not correct. If demand is very less in short-run, price reduces and loss can happen due to non recovery of total cost. But, it is also true that possibilities of loss are rare for monopolist. Short-run loss of monopolist gets eliminated in long-run and he earns profit. Monopolist will continue production in short run even if he has to suffer loss till price (AR) is not less than average variable cost (AVC). In diagram 9, equilibrium point will be E, where MR and MC are equal. At this equilibrium point E;

$$\begin{aligned} \text{Quantity of output} &= OQ \\ \text{Average Revenue (AR)} &= BO \\ \text{Average Cost (AC)} &= AO \\ \text{Loss per unit} &= BO - AO = BA \\ \text{Total Loss} &= OQ \times BA = ABCP \end{aligned}$$

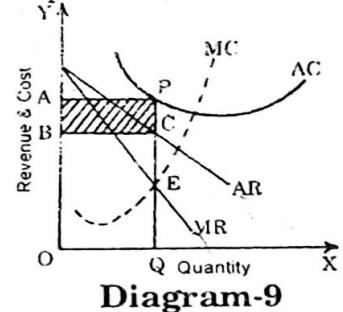


Diagram-9

MONOPOLY PRICE OR EQUILIBRIUM IN LONG-RUN

Monopolist has time in long-run that he can make necessary changes in capacity of his plant for maximising his profit. Monopolist definitely earns profit in long-run. In diagram 10, long-run marginal revenue (LMR) and long run marginal cost (LMC) are equal at point E. At equilibrium point E;

$$\begin{aligned} \text{Quantity of output} &= OQ \\ \text{Price} &= AO \text{ or } PQ \\ \text{Long-run average cost (LAC)} &= BO \\ \text{Profit per unit} &= AO - BO = AB \\ \text{Total Profit} &= AB \times OQ = ABCP \end{aligned}$$

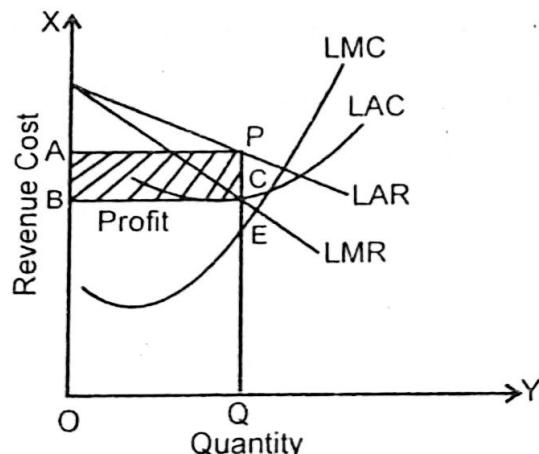


Diagram-10

EFFECT OF LAWS OF RETURNS ON LONG-RUN EQUILIBRIUM

Since, there are possibilities of expansion and contraction of production

of firm in long-run under monopoly, therefore, costs are directly affected by states of law of returns. If law of diminishing returns or law of increasing cost is active, both average cost (AC) and marginal cost (MC) would be rising. Whereas, when law of constant returns or law of constant cost is active AC and MC would be parallel to x-axis. At applicability of law of increasing return or law of diminishing cost, both MC and AC would be falling. Due to these reasons, effect of cost curve behaviour would be on equilibrium which is shown in below diagrams :

(a) Law of Diminishing Returns (b) Law of Increasing Returns (c) Law of Constant Returns

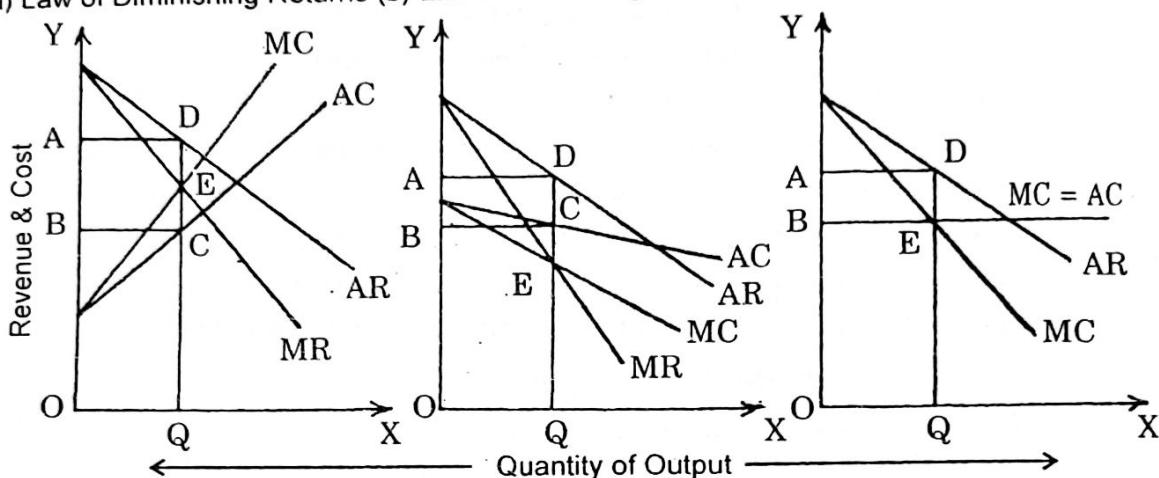


Diagram-11

In diagram 11, revenue curves (MR and AR) have been shown as normal which are falling in a, b and c all the three parts. But, according to laws of returns, cost curves (MC and AC) have been shown as rising, falling and constant respectively. In all the three parts of diagram, at equilibrium point E, where MR and MC intersects, OQ quantity of output is obtained. Equilibrium price would be determined as AO or DQ, but area of monopoly profit is shown different as per laws of returns. In three situations profits are respectively rectangle ABCD, ABCD and ABED. Therefore, the amount of profits are different as per laws of returns.

LIMITATIONS OF MONOPOLY POWER

A proverb is very popular, '**A monopolist is a king without a crown.**' As the king is most powerful in his kingdom and rules it, similarly a monopolist is most powerful in market as kingdom, and charges any price from customers. He is sole producer or seller in his region, there is no close substitute available for his goods and don't allow any new firm to enter into industry. He has full control over supply and can charge more price from reducing supply in market. Though, following are limitations of monopoly powers because of which he imposes desired restriction and control and price has to maintain :

For example, average cost of production may increase due to sudden increase in the prices of raw materials.

In Fig.-9, Total Revenue (TR) of the monopolist would be $OP_0 \times OQ_0 = \square OP_0 FQ_0$ and Total Cost (TC) = $OC \times OQ_0 = \square OCGQ_0$

As $TC > TR$

or, $\square OCGQ_0 > \square OP_0 FQ_0$

Therefore, short-run loss faced by the monopolist would be equal to the area $\square P_0 FGC$.

7.6.4. Price and output determination under monopoly : long-run period

As there is restricted entry in this market, so even if the monopolist earns excess profit or supernormal profit during the short-run, this would not lead to the entry of new firms into the market. On the other hand, if the monopolist incurs short-run loss, it would take

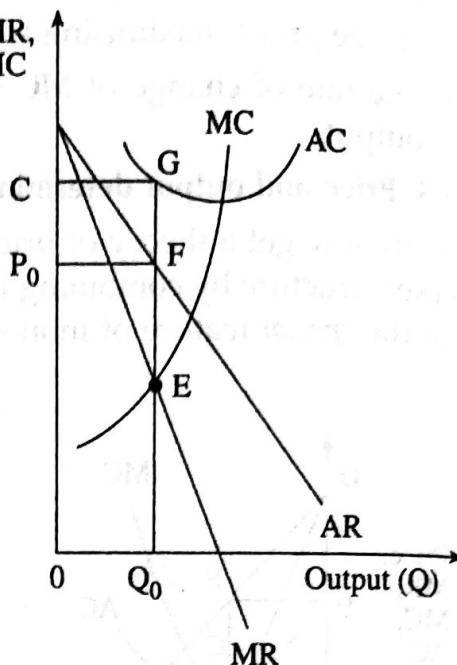


Fig.-9

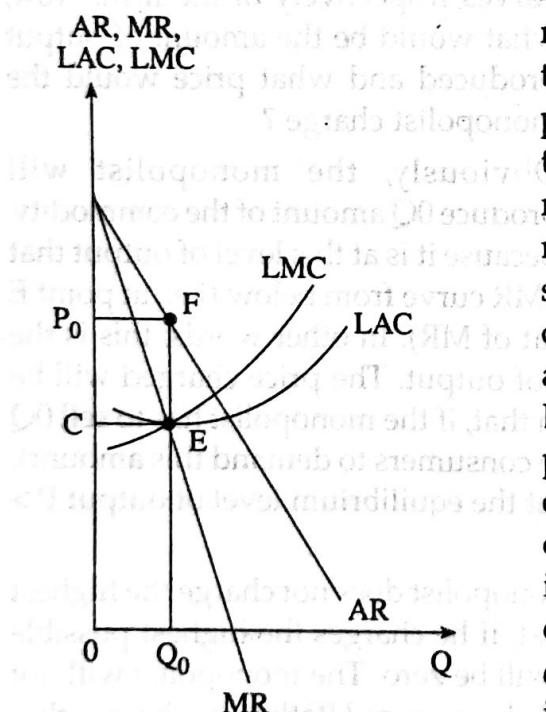


Fig.-10

supernormal profit (which is equal to the area $\square P_0 FEC$ in Fig.-10) even when LAC is minimum at the equilibrium point.

7.6.5. Sources of monopoly power

Now we can identify some factors which are responsible for generating monopoly power of a firm :

necessary steps to avoid this loss in the long-run. Hence, in case of a monopoly market, the monopolist generally earns supernormal profit in the long-run. Here, we can show that, even if the long-run average cost of the monopolist is minimum at the profit-maximising level of output, still it may earn supernormal profit. In Fig.-10, LAC and LMC curves indicate the long-run average cost and marginal cost curves respectively. The LMC curve cuts the MR curve from below at point E. So, E indicates the long-run equilibrium point of the monopolist. At this equilibrium point, LAC is minimum. It is important to note that the long-run equilibrium position of a firm under a perfectly competitive market indicates normal profit and in that case, LAC becomes minimum at the equilibrium point. However, under the monopoly market, the monopolist earns a supernormal profit (which is equal to the area $\square P_0 FEC$ in Fig.-10) even when LAC is minimum at the equilibrium point.

(1) Fear of Potential Rivals : If monopolist earns profit through very high prices of his product, in future powerful national or international rivals may enter in his region and hurt his monopoly power. Hence, monopolist is not able to place high prices of his product due to fear of prospective rivals.

(2) Fear of State Control : If monopolist exploits consumers by charging excessive price for his commodities, the government may interfere and control his trade. Government may set appropriate price and minimum quantity of supply for controlling exploitation of general public. Monopolist, in the fear of such restriction or interference, makes attempt to keep his price within tolerable limit of common man.

(3) Public Opinion : If monopolist fixes very high price for his commodities, people react against it and they raise their voice through public conferences, parliaments and various platforms. Now a days, consumers even form consumer organisation and take action against it. Today, consumers are aware of their rights and government also has provided them legal assistance for such cases.

(4) Possibility of substitutes : If monopolist places his commodities price very high in order to increase profit there is a strong possibility of that efforts are made for finding substitutes for such goods. That is why, monopolist has to keep his goods price at an appropriate level.

(5) Nationalisation : Monopolists have one more threat that government may take action of nationalising the firm. Welfare government takes control of the firms who are involved in monopolistic activities.

The monopolist is considered to be a king, but above limitations compell him to a king without a crown so he can not behave as autocrat.

ECONOMIC CONSEQUENCES OF MONOPOLY

Monopoly has some profit and some loss. These merits and demerits have been enumerated below :

- Merits :**
- (1) Economies of large scale,
 - (2) Less Selling cost,
 - (3) Encouragement to research,
 - (4) Appropriate for public utility services, and
 - (5) Able to face economic problems.

- Demerits :**
- (1) Consumers exploitation,
 - (2) Centralisation of economic power,
 - (3) Restriction in entry of new firms,

- (4) Less wages to labours,
- (5) Hindrance in technical progress,
- (6) Reduction in skillness,
- (7) Political corruption, and
- (8) Generating artificial commodity crisis.

In order to prevent above mentioned dangerous consequences following methods are used to control the monopoly :

- (1) MRTP Act, 1969,
- (2) Control over price and output,
- (3) Public ownership,
- (4) Heavy taxation,
- (5) Encouragement to healthy competition,
- (6) Encouragement to consumer organisation, and
- (7) Social boycott.

Is MONOPOLY PRICE ALWAYS HIGHER THAN COMPETITIVE PRICE ?

Monopolist is alone in his area and he has complete control over supply, hence, mostly, his price is higher than imperfect competition. In perfect competition, price determination of industry is done where equilibrium price lies between total demand and total supply and no individual firm can control the prices. Perfect competition firms adjust their output at price determined by industry. That is why, monopoly price is mostly higher than competition price, but it does not always happen. In various situations, monopolist may also sell its commodities at lower price than perfect competition. These situations are following :

(1) When demand of commodity is elastic and output is under law of diminishing cost (law of increasing return), then both AC and MC are falling. In such condition, monopolist can earn more profit by selling more quantity at low price.

(2) Generally, monopolist does production at large scale so its cost per unit is less due to large scale economies and he charges comparatively lesser price of commodity to develop brand image and loyalty.

(3) There is fear of competition (prospective), inventions of substitutes, government intervention, consumers' reaction and nationalisation in monopoly, that is way, he charges less price for his commodity.

(4) Monopolist does not have to face competition in production and sales, leading to reduction in advertisement and sales promotion, therefore he can

charge less price as selling cost is less.

DIFFERENCE BETWEEN PERFECT COMPETITION AND MONOPOLY

(1) Difference between features : The characteristics of perfect competition and monopoly are opposite to each other. Competition is at extreme in perfect competition whereas it is completely lacking in monopoly because features of them are different. Perfect competition has following features :

- (i) Very large number of buyers and sellers,
- (ii) Homogeneous product,
- (iii) Free entry of firms in industry,
- (iv) Perfect knowledge of market to buyers-sellers,
- (v) Perfect mobility of factors of production, and
- (vi) Identical price.

Following are features of monopoly :

- (i) Single producer,
- (ii) Lack of substitutes,
- (iii) Restriction of firm's entry in industry, and
- (iv) Price differentiation possible.

(2) Difference between firms and industry : There are various firms in perfect competition and, all when combined is called industry. Firm and industry are different in perfect competition whereas firms and industry is same in monopoly as there is only one firm. Like, in the class room, if there is only one student then class and student are same.

(3) Difference between revenue curves : Price, demand curve, averages revenue and marginal revenue curves are in one straight line in perfect competition so $P = D$ curve = $AR = MR$. In perfect competition, revenue (price) of firm is in a line whereas in monopoly AR curve is above MR curve and both are falling. Its reason is that for selling more commodity firm has to

reduce price. In diagram 12, revenue curves of perfect competition and monopoly have been shown. AR and MR curves are horizontal line in perfect competition whereas in monopoly both AR_1 and MR_1 are shown falling.

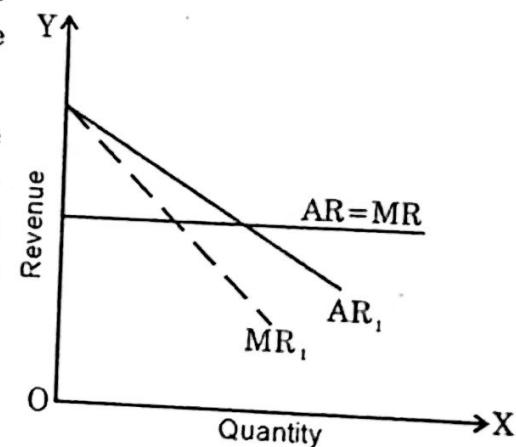


Diagram-12

(4) Price taker and price maker : A firm is price taker in perfect competition. Price determined by industry, through total demand and total supply, is accepted by all firms and they do not determine their own price. In monopoly firm is itself industry hence, it determines price by own therefore called price maker.

(5) Difference between equilibrium conditions : There is one condition for equilibrium in both perfect competition and monopoly that is marginal revenue and marginal cost are equal ($MR = MC$). But, in perfect competition, due to equality of average revenue and marginal revenue, the condition becomes $MR = MC = AR$ but in monopoly it is $MR = MC$.

(6) Profit in long-run : Firms of perfect competition earn zero profit (normal profit) in long-run because of freedom of new firms to enter in industry but monopoly firm earns abnormal profit in the long-run.

(7) Price of monopolist is higher and output is less than in perfect competition : Monopolist mainly produces less and keeps price higher than perfect competition market. It is clear from diagram 13, that average revenue and marginal revenue curves are equal ($AR = MR$) in perfect competition. Marginal cost (MC) curve cuts MR at point P because of which price is determined as PQ at OQ quantity. In its opposite, average revenue and marginal revenue curves of monopolist are AR_1 and MR_1 . MC curve cut MR_1 curve at point E where OQ_1 quantity and P_1Q_1 price is determined. Through comparison, it is clear that, price of monopolist is more and quantity is less than in perfect competition.

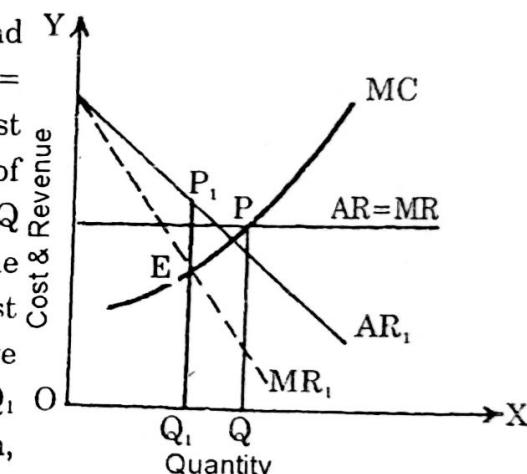


Diagram-13

DISCRIMINATING MONOPOLY OR PRICE DISCRIMINATION

Discriminating monopoly is that specific form of monopoly market where there is only one seller of commodity and charges different prices of his commodity to different buyers. The situation where same commodity is sold to different buyers at different price is called price discrimination and monopolist performing such activity is called discriminating monopolist. For instance, State Electricity Board supplies electricity at different rates for use of household, agriculture and industry consumption.

As per Mrs. Joan Robinson, "The act of selling the same article, produced under single control at different prices to different buyers is known as price discrimination."

In the words of **Stigler**, "Price discrimination may be defined as the selling on two or more prices for an identical commodity."

It is clear from above definitions that there is only one seller of a commodity in market and he charges different prices for his commodity to different customers.

Objectives Or Causes Of Price-Discrimination : The main objectives of price-discrimination are following :

- (1) Charge prices according to purchasing power of customers or buyers, as more from rich buyers and less from poor buyers.
- (2) In order to increase sales in future, goods should be sold at lower prices to buyers so that they may get habitual of it and purchase commodities even at higher prices, in future.
- (3) Selling goods at lower prices when stock of it is in large amount.
- (4) Selling goods at reduced prices to enter into a new market.
- (5) Charge less price from buyers in order to discourage prospective competitors.
- (6) For maximising profit, charging less price to buyers for goods having inelastic demand.
- (7) For obtaining consumer's surplus charging high price by producer.
- (8) For optimum utilisation of plant capacity, accepting particular order at low price.
- (9) Charging different prices from consumers on the basis of geographical differences.

TYPES OF PRICE DISCRIMINATION

Price discrimination has following types :

(1) Personal Price Discrimination : Under this, commodity or service is sold at different prices to different persons. Like, advocate charges different fees from different clients according to their capacity.

(2) Geographical Price Discrimination : When different prices are charged of a commodity at different places it is called geographical price discrimination. For example, charging more prices at domestic market and less prices at foreign market, which is called dumping.

(3) Price Discrimination According to Use : Under this, prices are charged according to different uses of commodities. For instance, electricity board charges different rates for agricultural use and domestic use.

(4) Class Price Discrimination : It includes different pricing for dif-

ferent classes. For instance, Indian Railways provides rebates for students, senior citizens, blinds and sport persons etc.

(5) Price Discrimination According to Time : Seller can also discriminate price according to time-duration. For example, telecom division or mobile service providers keep low rates in night in comparison to day. Taxi or auto service provides keep high or double rate in night.

(6) Discount Price Discrimination : When monopolist sells his commodities at different prices to his customers by discounting, it is called discount price discrimination. This discount can be in the form of distributor discount, cash discount, quantity discount, non-seasonal discount. For example, discount provided by sellers on purchase of commodity above a particular quantity or cash purchases, it is called discount price discrimination.

NECESSARY CONDITIONS FOR PRICE DISCRIMINATION

Price discrimination is possible only at completion of following conditions :

(1) Monopolistic Situation : It is necessary for price discrimination that firm is in situation of monopoly. Price discrimination is possible for monopolist only because he has full control over supply. Price Discrimination can not be done in perfect competition market.

(2) Difference in Elasticity of Demand : For price discrimination policy it is important that demand elasticity of commodity is different in different markets. In market, where elasticity of demand is inelastic or less elastic, monopolist charges high prices for commodity. On its opposite, in market, where elasticity of demand is more elastic, less price of commodity is charged by monopolist. This way, discriminated monopolist can earn maximum profit by getting advantage of difference in elasticity of demand in these two markets.

(3) Separate Market : Price discrimination condition requires that various market of commodity sales are different and there is no connection among them. In order to successful price discrimination, two or more than two market should be separated and at distant from each other so that carrying or transferring commodities from one market to another market is not possible. In its absence, buyers will purchase commodities from cheaper market and sell them in expensive market and price discrimination would gradually be eliminated.

(4) Nature of the Product : Nature of goods or services should be such, that their re-selling or transfer is not possible. For instance, doctor charges different fees from different patients according to their income. Here,

price discrimination is possible because, poor patients can not transfer doctor's service to rich patients.

(5) Ignorance of Buyers : Price discrimination is only possible when customers are unaware about appropriate price of commodity. Through taking advantage of this ignorance, seller charges different prices from different buyers.

(6) Legal Sanction : In some cases, Government provides legal sanction to monopolist for charging different prices of goods or services. Government has provided legal sanction to electricity organisation to charge different rates for household usage and industrial usage. In these cases, price discrimination is done without any hindrance.

(7) Supply on Order : When any firm manufactures and sells his commodity at specific order, he usually charges more price from rich or able customers.

(8) Transport Cost : Due to large geographical distance between two market, there is difference in transport cost and price discrimination is possible.

(9) Irrational Feeling of Buyers : Price discrimination is possible when there is an irrational feeling among buyers that they are paying high price as commodity is of high quality. Sometimes customer has illusion that a particular expensive commodity is better than cheaper commodity.

(10) No Care of Trivial Difference : Price discrimination is possible also at time when difference of prices is very small and customers do not care about these small differences.

JUSTIFICATION OF PRICE DISCRIMINATION

Generally, price discrimination is considered to be unwanted and harmful, as per social views. Monopolist charges different prices for same goods from different buyers and encourages black marketing. It is assumed that price discrimination policy is anti-social and it exploits customers. But, this approach is not completely appropriate. Price discrimination is appropriate in some cases and inappropriate in some other cases. Hence, existence of price discrimination depends on the circumstances in which they are adopted.

Price discrimination can be said appropriate in following conditions :

(1) Lack of economic equality : When more price is charged from richer section and less price is charged from poorer section, such price discrimination would be treated favourable to society and would help in reducing the inequality of wealth.

(2) Public Utility Services : Price discrimination is considered appro-

priate in case of public utility services, like Railways, Postage, Telephone etc., so that poor people can avail them at lower prices. The price of postcard is kept low by post office as these are used by general public whereas cost of speed post or registered post is high.

(3) Utilising extra production : If any producer keeps low prices in foreign market and high prices in domestic market, in order to utilize extra production, it is appropriate. It enables expansion of industry, economies of large scale production are obtained, more employment and income are generated in society and increase in export of country and rise in foreign exchange reserve will be possible.

(4) Initiating production of goods or services : In some cases, price discrimination need to apply for starting production of goods or services which is desirable. For instance, in hilly areas transportation services like bus are started by Government through low fare inspite of high cost, which is appropriate because if such services is not started that area of nation would lack opportunity for connectivity and better transportation.

(5) On the basis of geographical distance : If price discrimination is done on the basis of geographical differences, the transportation cost of producer would be different at various places and discriminated price would be necessary. For instance, Glucose Biscuit producer keeps price different in different states.

In following conditions, price discrimination is considered to be inappropriate and harmful for society :

(1) Fast rise in prices : If prices are rising fast, due to price discrimination, it would be called harmful. This way, objective of discrimination is earning more profit by exploitation of customers.

(2) Reduction in production : If production and sales of monopolist is reduced due to price discrimination, it would not be considered as appropriate. It leads to ineffective utilisation of society's resources, reduction in employment and income generation.

(3) Dumping : If price discrimination takes the shape of dumping, in which higher prices are charged in domestic market in comparison to foreign market, it is not justified. It encouges the possibility of fragmentation of world economy.

(4) Inappropriate distribution of resources : If inappropriate distribution of resources of nation is done due to price discrimination, it would be called unjustified. For example, if in a nation, discriminated monopolist produces luxuries items, at large scale it would be harmful for nation.

It is clear from above discussion that price discrimination is neither always appropriate nor always inappropriate. It can be evaluated on the basis of impact of price discrimination on the whole society and nation.

Merits and Demerits of Price Discrimination : Main merits of Price Discrimination are :

- cheaper commodities to poor section,
- reduction in economic inequality,
- sale of extra production, and
- availability of public utility services.

The main demerits of Price Discrimination are :

Dumping, social injustice, rise in price and encouragement to black marketing.

PRICE AND OUTPUT DETERMINATION UNDER DISCRIMINATING MONOPOLY

In case of discriminating monopoly, there is no different principle for the process of determination of price and output (or equilibrium of firm) than normal monopoly. The objective of discriminated monopolist is also maximising profit. This maximum profit is obtained when his marginal cost is equal to marginal revenue.

Here, for convenience of analysis, we assume that there are only two markets of monopolist's commodity - market A and B. In market A, demand elasticity of commodity is less elastic and in market B, it is more elastic. (There may be more than two market in reality but, here, for convenience only two markets have been taken). In such case, determination of price and output is made in following way :

(1) First of all, average revenue (AR) and marginal revenue (MR) curves of both the markets of monopolist is drawn and them with sum of separate marginal revenue of both markets marginal revenue (MR) curve of total market is drawn.

(2) Point, where marginal revenue and marginal cost of total market is equal, is point of equilibrium ($MR = MC$). At this equilibrium point, the total quantity of output is determined. Marginal cost is not different for different market. Production is done together so marginal cost is for total market.

(3) After determination of total output quantity, monopolist has to divide the total quantity in two markets that marginal revenue of each market is equal to marginal cost of equilibrium point of total market.

(4) Different price and equilibrium quantity will be determined in two markets.

Its explanation can be specified in given three parts of diagram 14.

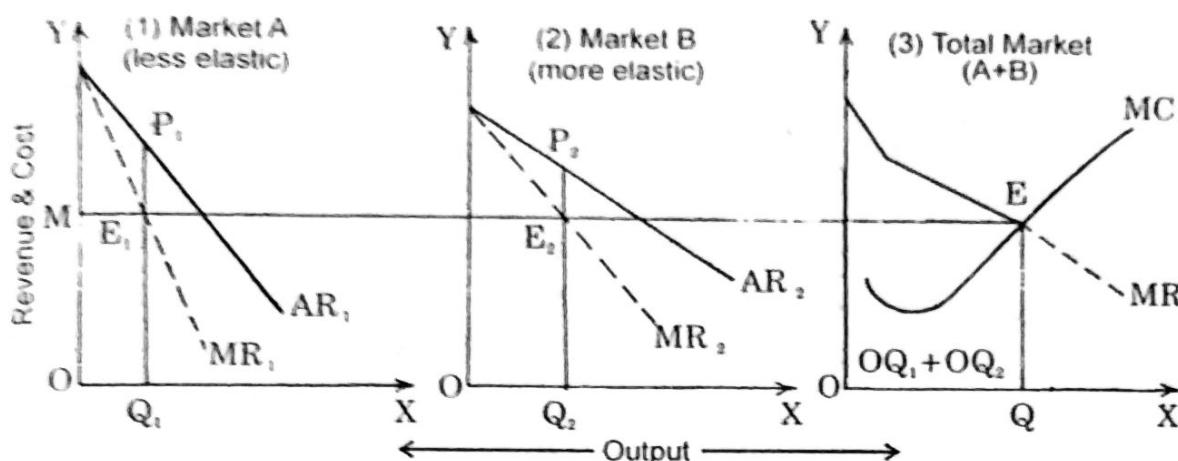


Diagram-14

In diagram 14, in market A, marginal revenue and average revenue curves are MR_1 and AR_1 , as demand is less elastic, whereas, in market B, marginal revenue and average revenue curves are MR_2 and AR_2 , as more elastic demand. With sum of both the market, marginal revenue curve (MR) of total market has been drawn which is initially less elastic and more elastic later. Its clear reason is that at higher price demand of commodity is only in market A and not in market B, that is why, in starting structure of MR curve of total market is similar to MR_1 curve of market A. At low price demand of commodity remains in both markets as a result marginal revenue curve of total market is more flat.

In total market, at the point where MR and MC are equal, is equilibrium point. At point E, both are equal hence, monopolist would produce, OQ quantity. Now, question arises, how much quantity of total output be divided in both market and what price to determine. For this purpose the marginal cost line (ME), which is parallel to X-axis is drawn and the marginal revenue curves of the separate markets will intersect it for deciding the equilibrium points of own markets. In market A, the ME line (or marginal cost curve of total market) cuts the marginal revenue curve MR_1 curve at equilibrium point E_1 . At this equilibrium point, OQ_1 quantity would be produced, whose price would be determined $P_1 Q_1$ through average revenue AR_1 . In market B, ME line cuts MR_2 curve at E_2 . At this equilibrium point, OQ quantity would be produced, whose price would be determined as $P_2 Q_2$, by average revenue AR_2 . It is clear that in less elastic demand market, less quantity will be sold by higher price and in more elastic demand market more quantity would be sold at low price.

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In brief : Price in Market A = $P_1 Q_1$

Quantity of output in Market A = OQ_1

Price in Market B = $P_2 Q_2$

Quantity of output in Market B = OQ_2

Total output Quantity = $OQ_1 + OQ_2 = OQ$

Price Discrimination = $P_1 Q_1 - P_2 Q_2$

Conclusion : Discriminated monopolist has to take following three decisions to maximise profit :

(1) How much quantity of total output is sold in total market ? = OQ

(2) How much quantity of output is distributed in separate markets ?
= OQ_1 & OQ_2

(3) What are different prices in two markets ? = $P_1 Q_1$ & $P_2 Q_2$

MONOPOLY IN HOME MARKET AND COMPETITION IN FOREIGN MARKET OR DUMPING

Dumping is a specific situation of price discrimination where monopolist sells same commodity at lower price in foreign market than domestic (home) market. For dumping two specific conditions are necessary :

- (a) There is monopoly in domestic market where he is able to sell less production quantity at higher price.
- (b) There is competition in foreign market where more output is sold at lower price.

There may be one more important fact, in this regard, that dumping can also happen, in case of only domestic market, apart from being domestic and foreign markets. If there are two separate markets in own domestic market. Producer is in situation of monopoly in one market, then he would charge high price in such market. In other market, where competition exists, he would sell his commodity at lower price. This is also case of dumping when two markets exist in the home trade.

Objectives of Dumping : Monopolist may choose dumping with any of the following objectives :

(1) To Get Rid of Surplus Production : Mistake or error by the monopolist, in forecasting the demand of commodity sometimes results in surplus production, which can not be sold fully in the domestic market. He has to face the problem of over-production. Now, if monopolist tries to sell this sur-

plus production in domestic market, whole production has to be sold at lower price. In such case, it is suitable for him to utilise surplus output in foreign market at lower price.

(2) To Crush Rivals in Foreign Market : Monopolist sometimes take help of dumping to crush rivals in the foreign market. He sells goods at lower prices than the competitors and gradually eliminates them. He may increase the price once when whole market is captured in foreign.

(3) To Reap the Advantage of Law of Increasing Returns : When law of increasing returns applies over producer's firm (monopolist's firm) expansion of output is profitable for him. When domestic market buyers are not available, he likes to sell in foreign market at lower price.

(4) To Create Demand in Foreign Market : Monopolist creates new market through selling goods at lower in foreign trade. Once such market is created and popularity expanded, he increases the price of his goods.

Price Determination under Dumping : Price would be determined in dumping at point where marginal revenue and marginal cost are equal. To satisfy this condition, monopolist determines high price in domestic market and low price in foreign market. Price and output determination of dumping has been shown in diagram 15.

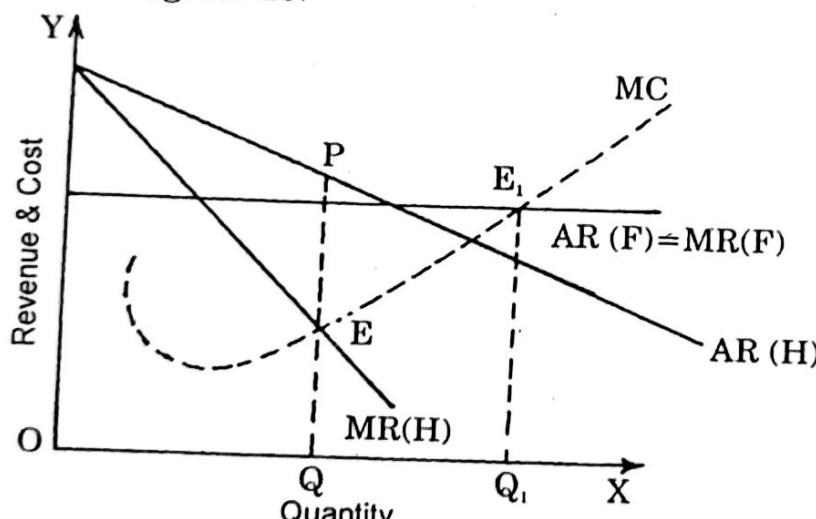


Diagram-15

In diagram AR (H) and MR (H) are average and marginal revenue curves of home market. Since, there is monopoly in domestic or home market, therefore, both curves are falling. On its opposite, AR (F) and MR (F) are shown in a straight line, which is average and marginal revenue curve of foreign market. Due to perfect competition in foreign market both curves are shown in straight line. Marginal cost curve is same for both type of market because cost will be same for both markets. Marginal cost (MC) curve of monopolist where intersects the marginal revenue (MR) curve that point would be equilibrium

point. MC curve will cut MR (H) at point E, at this equilibrium point quantity and price of home market would be OQ and PQ respectively. MC curve will cut MR (F) at E₁ point, at this equilibrium point quantity would be OQ₁ and price would be E₁Q₁ for foreign market.

It is clear that monopolist will sell more output in foreign market at low price and less output in home market at high price. It is the summary of dumping.

ESSAY TYPE QUESTIONS

1. What is meant by the term monopoly ? How is price determined under it ?
2. What is 'Discriminated Monopoly' ? How is price and output determined by a monopolist in short-run and long-run ?
3. Discuss the price determination under monopoly in the short-run. Is it true that monopoly price is always higher than competitive price ?
4. Briefly point out the characteristics of monopoly and monopsony. How does a monopolist fix the price of his product under 'Trial and Error Method' ?
5. Distinguish between simple and discriminating monopoly and explain the equilibrium of a firm under simple monopoly.
6. What is 'monopoly net revenue' ? How is it decided in Marshallian Approach ? Show the effect of laws of return on long-run equilibrium with the help of diagrams.
7. "Monopolist is a king without crown." Explain this statement and write the difference between perfect competition and monopoly.
8. Explain diagrammatically Mrs. Joan Robinson's method of monopoly firm's equilibrium.
9. Write short notes on any two of the following :
 - (a) Causes of emergency of monopoly,
 - (b) Limitations of monopoly power,
 - (c) Classification of monopoly, and
 - (d) Characteristics of monopsony.
10. What do you mean by price discrimination ? What are its objectives ? Is it always anti-social ?
11. What is meant by 'price discrimination' ? Mention the conditions necessary for it. Is it always harmful to society ?
12. Define discriminating monopoly. Explain price and output determination under it. How is price discriminated in the case of dumping ?

13. Write descriptive notes on any two of the following :

- (a) Types of discriminating monopoly,
- (b) Justification of price discrimination,
- (c) Dumping, and
- (d) Difference between perfect competition and monopoly

SHORT TYPE QUESTIONS

1. Write the meaning and characteristics of monopsony.
2. Is price discrimination always anti-social ? Briefly explain.
3. What do you mean by discriminating monopoly ? Point out its types.
4. What are the causes of monopoly's emergence ? Enumerate.
5. Explain diagrammatically the Marshallian method of monopoly firm's equilibrium.
6. Monopolist is king without crown. Explain.
7. Is monopoly price always higher than competitive price ? State.
8. In what circumstances price discrimination is treated justified ? Give arguments.
9. State the objectives of dumping.

VERY SHORT TYPE QUESTIONS

1. State the meaning of monopsony.
2. Write the meaning of monopoly net revenue.
3. State the difference between complete and incomplete monopoly.
4. What is earned by monopoly in long-run whatever profit, zero profit or loss ?
5. Generally which is having high price and low production out of perfect competition and monopoly ?
6. What is discriminating monopoly ?
7. What is called dumping ?

OBJECTIVE QUESTIONS

1. Which are not the attributes of monopoly ?
 - (i) Single seller
 - (ii) Independent price policy
 - (iii) Single buyer
 - (iv) Zero profit in long-run
 - (v) Free entry and exit of firms
 - (vi) Price discrimination possible
 - (a) (i), (ii), (iii)
 - (b) (ii), (v), (vi)
 - (c) (iii), (iv), (v)
 - (d) None of the above

2. The concept of monopoly was propounded by

 - (a) Marshall
 - (b) A. R. Lerner
 - (c) Chamberlin
 - (d) Mrs. Joan Robinson

3. Which are necessary conditions for price discrimination ?

 - (a) Difference in demand elasticity
 - (b) Legal Sanction
 - (c) Ignorance of buyers
 - (d) All above

4. What are the essential conditions for dumping ?

 - (a) Monopoly in the domestic market
 - (b) Competition in foreign market
 - (c) None of (a) and (b)
 - (d) (a) and (b) both

Ans. 1. (c), 2. (d), 3. (d), 4. (d)

