UNIT-3: REVENUE: total, average and marginal revenue, relationship between AR and MR curves, pricing under various market condition: **perfect competition**- equilibrium of firm and industry under perfect competition, **monopoly**- price discrimination under monopoly, monopolistic competition- price and output determination under monopolistic competition.

OUTCOMES:

- Perfect competition is a market structure where there are many small firms selling identical products, with no barriers to entry or exit. In a perfectly competitive market, the price is determined by the forces of supply and demand, and each firm is a price taker, meaning they cannot influence the price.
- Students may view perfect competition as fair and efficient since it allows for competition to drive down prices and increase consumer welfare.

MEANING OF REVENUE:

- The amount of money that a producer receives in exchange for a sale proceeds is known as **revenue.**
- **Revenue refers to the amount receives by a firm from the sale of a given quantity of a commodity in the market.**
- Revenue is a very important concept in economic analysis. It is directly influenced by sales level, i.e.as sales increase, revenue also increase.
- **Example:** if a firm gets rs16000 from sale of 100 chairs, then the amount of rs16000 **is known as revenue**.

CONCEPT OF REVENUE:

The concept of revenue consists of three important terms: **total revenue, average revenue and marginal revenue.**

TOTAL REVENUE:

- Total revenue refers to the total receipts from the sale of a given quantity of a commodity.
- It is the total income of a firm
- Total revenue is obtained by multiplying the quantity of the commodity sold with the price of the commodity.
- **Total revenue= quantity ×price**
- **For example:** if a firm sells 10 chairs at a price of rs160 per chair, then the total revenue will be **10 chairs×rs60=rs1600**.

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AVERAGE REVENUE:

- Average revenue refers to revenue per unit of output sold.
- **It is obtained by dividing the total revenue by the number of units sold.**
- **Average revenue= total revenue ÷ quantity.**
- **Example:** if the total revenue from the sale of 10 chairs rs160 per chairs is rs1600, then **average revenue= 1600÷10 = rs160.**

AVERAGE REVENUE AND PRICE ARE THE SAME:

We know, AR is equal to per unit sale receipts and price is always per unit. Since sellers receive revenue according to price, price and AR is one and the same thing.

AR CURVE AND DEMAND CURVE ARE THE SAME:

- A buyer's demand curve graphically represents the quantities demanded by a buyer at various prices.
- In other words, it shows the various levels of average revenue at which different quantities of the goods are sold by the seller. Therefore, in economics, it is customary to refer AR curve as the demand curve of a firm.

MARGINAL REVENUE:

- Marginal revenue is the additional revenue generated from the sale of an individual unit of output.
- It is the change in TR from sale of one more unit of a commodity.
- **MRn= TRn-TRn-1**
  Where:

  MRN= marginal revenue of nth unit;
  TRn= total revenue from n units;
  TRn-1= total revenue from (n-1) units;
  N= number of units sold

Example: if the total revenue realised from sale of 10 chairs is rs1600 and that from sale of 11 chairs is 1780, then MR of the 11th chair will be?
MR11= TR11-TR10
MR11=1780-1600
MR11=RS180

One more way to calculate MR:

We know, MR is the change in TR when one more units is sold. However, when change in units sold is more than one, then MR can also be calculated as:\

MR= change in total revenue ÷ change in number of units

Lets us understand this with the help of an example: if the total revenue realised from sale of 10 chairs is rs1600 and that from sale of 14 chairs is rs2200, then the marginal revenue will be:

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MR = TR OF 14 CHAIRS – TS OF 10 CHAIRS ÷ CHANGE IN NUMBER OF UNITS
MR= 600÷4
MR= RS150

LET US UNDERSTOOD TR, AR AND MR WITH THE HELP OF TABLE:

Units sold	Price	TR= Q×P	AV= TR÷Q=P	MRn=TRn-TRn-1
1	10	1×10 =10	10÷1=10	10-0=10
2	9	2×9=18	18÷2=9	18-10=8
3	8	3×8=24	24÷3=8	24-18=6
4	7	4×7=28	28÷4=7	28-24=4
5	6	5×6=30	30÷5=6	30-28=2
6	5	6×5=30	30÷6=5	30-30=0
7	4	7×4=28	28÷7=4	28-30=-2

RELATIONSHIP BETWEEN REVENUE CONCEPTS:

The relationship between different revenue concepts can be discussed under two situations:

1. **When price remain constant:** (it happens under perfect competitions)
   In this situation, firm has to accept the same price as determined by the industry**. It means, any quantity of a commodity can be sold at that particular price.**

2. **When price falls with rise in output:** (it happens under imperfect competitions). In this situation, firm follows its own pricing policy. However, **it can increase sales only by reducing the price.**

RELATIONSHIP BETWEEN AR and MR (when price remains constant):

- When price remains same at all output levels, no firms is in a position to influence the market price of the product. A firm can sell more quantity of output at the same price.
- It means, the revenue from every additional unit (MR) is equal to AR.
- As the result, both AR and MR curves coincide in a horizontal straight line parallel to the X-axis as shown in fig.

Units sold	price	TR	MR

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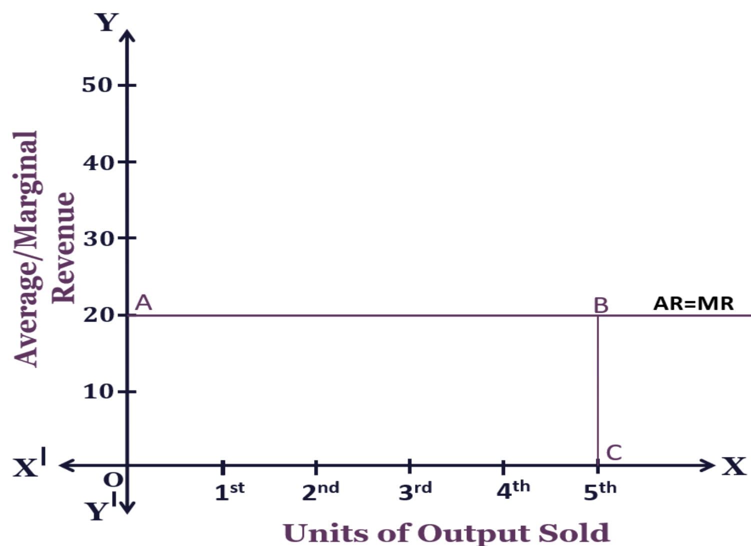
1	**5**	5	**5**
2	**5**	10	**5**
3	**5**	15	**5**
4	**5**	20	**5**

CURVE:



- As seen in the above schedule and diagram, price (AR) remains same at all level of output and is equal to MR. As a result, demand curve (or AR curve) is perfectly elastic(infinite).

RELATIONSHIP BETWEEN AR AND MR (when price falls with rise in output):

- When firms can increase their volume of sales only by decreasing the price, then AR falls with increase in sale.
- It means, revenue from every additional unit (i.e.MR) will be less than AR.
- As a result, both AR and MR curve slopes downward from left to right.

UNITS	AR	TR	MR	AR:MR
1	5	5	5	--------

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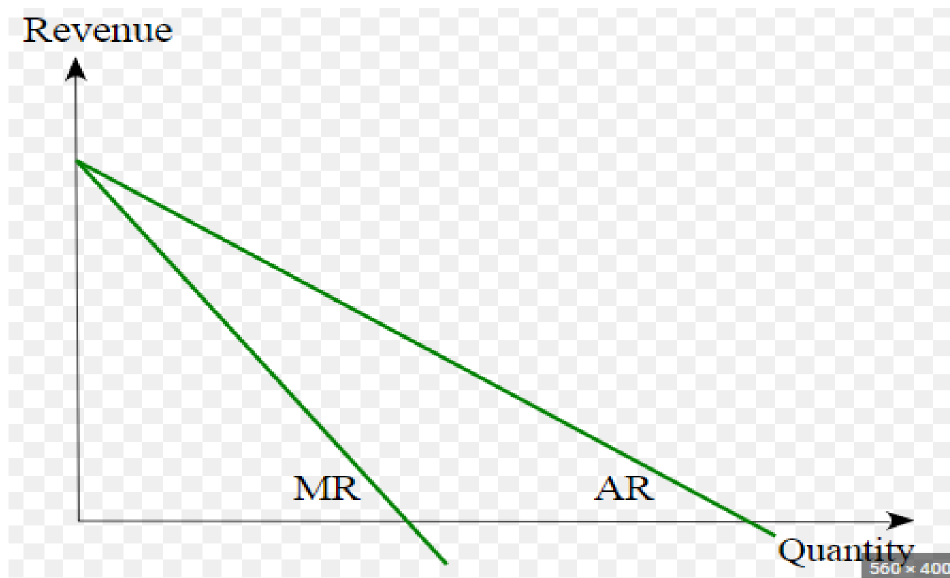
2	4	8	3	1:2
3	3	9	1	1:2
4	2	8	-1	1:2
5	1	5	-3	1:2

CURVE:



In table both MR and AR fall with increase in output. However, fall in MR is double than that in AR, i.e. MR falls at a rate which is twice the rate of fall in AR. As a result, MR curve is steeper than the AR curve because MR is limited to one unit, whereas, AR is derives by all the units. It leads to comparatively lesser fall in AR than in MR.

- **It must be noted that MR can fall to zero and can even become negative. However, AR can be neither zero nor negative as TR it is always positive**.

RELATIONSHIP BETWEEN TR AND MR (when price remains constant):

- When price remains constant, firms can sell any quantity of output at the price fixed by the market.
- As a result, MR curve (and AR curve) is a horizontal straight line parallel to the x-axis. Since MR remains constant, TR also increase at a constant rate

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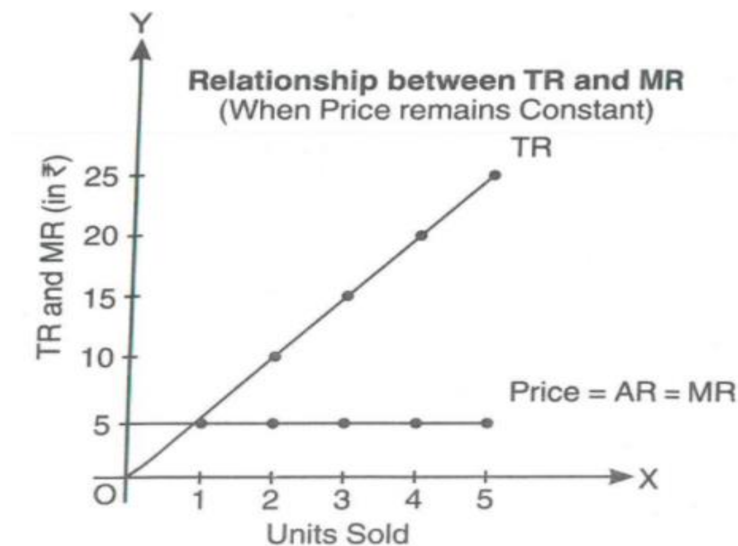
- Due to this reason, the TR curve is a positively sloped straight line in curve. As TR is zero level of output, the TR curve starts from the origin.

TABLE:

UNITS SOLD	PRICE/AR	TR	MR
1	5	5	5
2	5	10	5
3	5	15	5
4	5	20	5
5	5	25	5

CURVE:



RELATIONSHIP BETWEEN TR AND PRICE LINE:

When price remains constant at all levels of output, then price=AR=MR. Therefore, price line is the same as MR curve. Also, TR=∑MR so, the area under MR curve or price line will be equal to TR.

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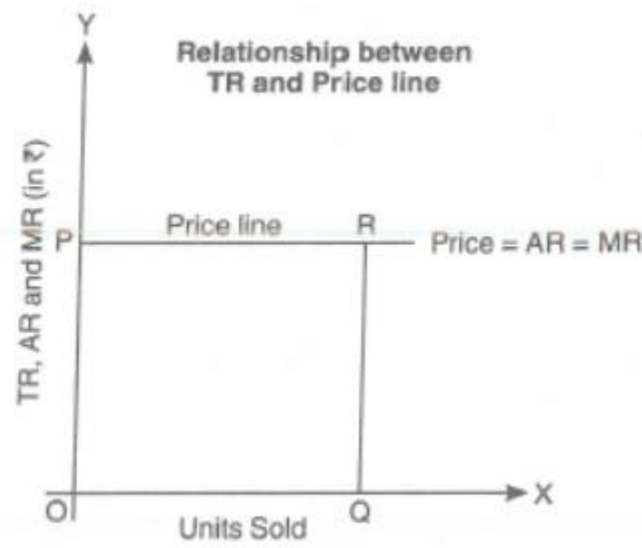

In above curve, TR at OQ level of output = OP×OQ=AREA UNDER PRICE LINE.

GENERAL RELATIONSHIP BETWEEN AR AND MR:

The relationship between AR and MR depends on whether the price remains same or falls with rise in output. However, if nothing is mentioned about the nature of price with rise in output, then the following general relation exists between AR and MR:

- AR increase as long as MR is higher than AC (or when MR>AR, AR increases)
- AR is maximum and constant when MR is equal to AR (or when MR=AR, AR is maximum).
- AR falls when MR is less than AR (or when MR<AR, AR falls).
- It must be noted that specific relationship between AR and MR depends upon the relation of price with output, i.e. whether price remains same or varies inversely with output.

CURVE:

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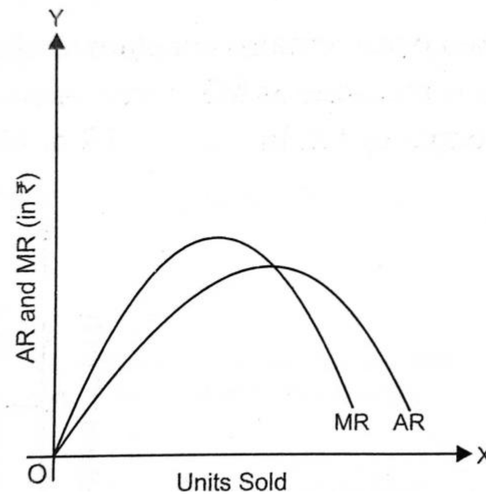

PERFECT COMPETITION:

- Perfect competition refers to a market situation where there are very large number of buyers and sellers dealing in a homogeneous product at a price fixed by the market.
- In the perfectly competition market, sellers sell a homogeneous product at a single uniform price. The price is not determined by a particular firm but by the industry.
- **Example:** in reality, perfect competition has never existed. The closest example we may have for such kind of market can be market for agriculture goods (like wheat and rice).
  In case of wheat, there are numerous buyers and sellers (farmers). As a result, no single buyer and seller can significantly affect the market price of wheat.

Features of Perfect Competition:

The various features of perfect competition are:

1. Homogeneous Product:

- The products offered by firms for sale under perfect competition are homogeneous. It means that the goods are identical in every respect such as size, shape, colour, quality, etc.
- As the products are homogeneous, the buyers are willing to pay the same price only for the products of every firm of the industry.

2. Very large number of Buyers and Sellers:

- The number of buyers and sellers in a perfect competition market is very large. It means that the number of buyers in a perfect competition market is so large that the total share of one single buyer is insignificant to the total purchase; therefore, a single buyer cannot influence the price of a product in the market.

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- Similarly, the number of sellers is so large that the share of one single seller is insignificant to the total supply of the economy; therefore, a single seller cannot influence the price of a product in the market.

3. Free entry and exit conditions:

- The Third important condition in perfect competition is that there are no artificial restrictions either preventing the entry of new firms into the market or compelling the existing firms to continue. The firms have full liberty to choose either to continue or go out of the industry.
- If the above three conditions alone are fulfilled, then it is called **Pure competition**.

4. Perfect knowledge on the part of buyers and sellers:

- The fourth condition is the existence of perfect knowledge on the part of buyers and sellers about market conditions. The buyers know in full about the commodity sold and the price prevailing in the market. The sellers know the potential sales at various price levels in the market.

5. Absence of transport cost:

- In a perfectly competitive market, it is assumed that there are no transport costs. If transport costs are incurred, prices should be different in different sectors of the market.

6. Absence of Government or artificial restrictions:

- There are no government controls or restriction on supply, pricing, etc, and the price should be free to change in response to changes in demand supply conditions.

Equilibrium of the Industry under Perfect Competition:

- Each such firm in industry produces a homogeneous product. Equilibrium of the industry happens when the total output of the industry is equal to the total demand. In such a scenario, the prevailing price of a commodity is its equilibrium price.

- **We know that under competitive conditions, the interaction of demand and supply determines the equilibrium price as shown below:**

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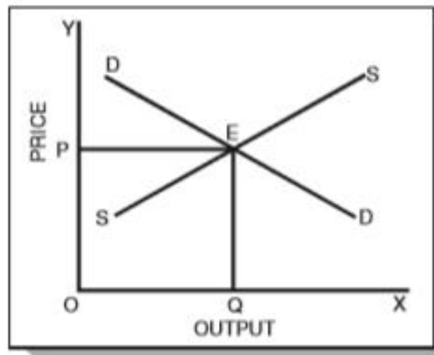

Fig. 1 : Equilibrium of a competitive industry

In above, OP is the equilibrium price. Further, OQ is the equilibrium quantity sold at that price. Now, the equilibrium price is the price at which both the demand and supply are equal. In other words, no buyer, who wanted to buy at that price, goes dissatisfied and no seller, who wanted to sell his goods at that price, goes dissatisfied either.

Note that with the demand remaining the same, if the price is higher or lower than OP, then the market is not in equilibrium. Also, if goods are lesser or higher than the demand, the equilibrium is not attained.

Equilibrium of the Firm under Perfect Competition:

- A firm is in equilibrium when it maximizes its profits. Hence, the output that offers maximum profit to a firm is the equilibrium output.
- In a competitive market, firms are price-takers. The reason being the presence of a large number of firms who produce homogeneous products.

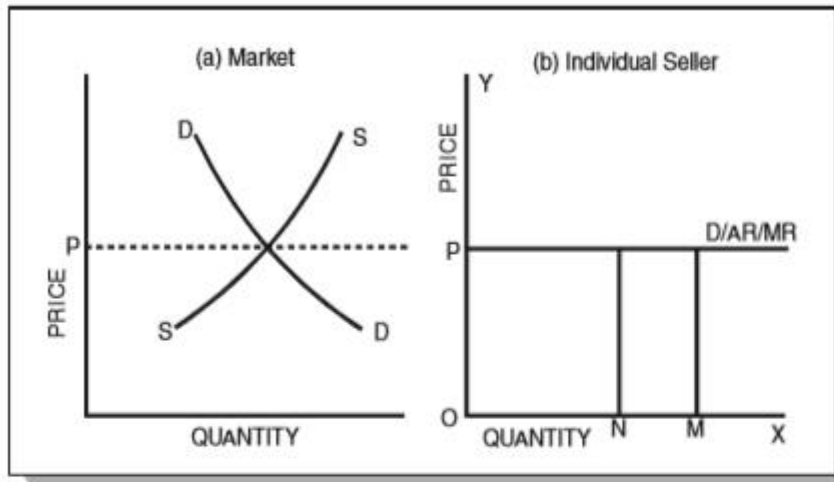

Fig. 2 : The firm's demand curve under perfect competition

From Fig. 2 above, you can see that the industry price, OP, is fixed throughout the interaction of demand and supply of the industry. Firms have to accept this price. Hence, they are price-takers and not price-makers. Hence, they cannot increase or decrease the price OP.

Therefore, the line P acts as a demand curve for such firms. Hence, in perfect competition, the demand curve of an individual firm is a horizontal line at the level of the industry-set market price. Firms have to choose the level of output that yields maximum profit.

Conditions for the equilibrium of a firm:

To attain an equilibrium position, a firm must satisfy the following two conditions:

They must ensure that the marginal revenue is equal to the marginal cost (MR = MC).

- If MR > MC, the firm has an incentive to expand its production and sell additional units.
- If MR < MC, the firm must reduce the output since additional units add more cost than revenue.
- The firm gets maximum profits only when MR = MC.

1. **The MC curve must have a positive slope and cut the MR curve from below**.

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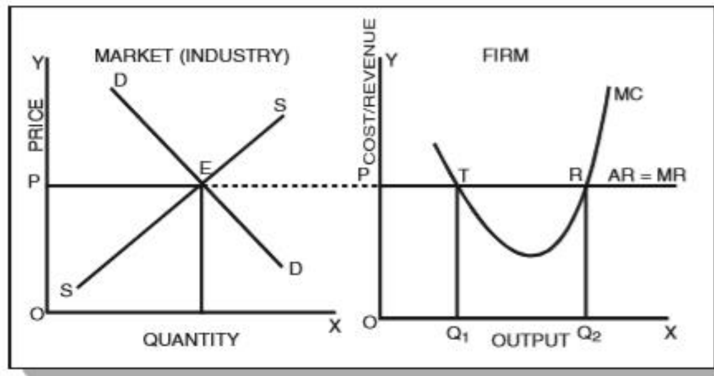

Fig. 3 : Equilibrium position for a firm under perfect competition

In Fig. 3 above, DD is the demand curve and SS is the supply curve. They equilibrate at point E and set the market price as OP. Under perfect competition, firms adopt OP as the industry price and consider the P-line as the demand curve or AR – average revenue curve (perfectly elastic at P).

Since all units are equally priced, the MR curve is a horizontal line and is equal to the AR line. Observe that the curve MC cuts the MR curve at two points – T and R. At point T, the MC curve cuts the MR curve from above whereas at point R it cuts the MR curve from below. Therefore, according to the conditions of equilibrium of a firm, point R is the point of equilibrium and OQ_2 is the equilibrium level of output.

MONOPOLY:

- We analysed the behaviour of a perfect competitive market structure with very large number of small firms. Monopoly is strictly opposite to perfect competition.
- 'MONOPOLY' is derived from two Greek words: 'MONOS' means SINGLE and 'POLUS' means a SELLER.
- Monopoly refers to a market situation where there is a single seller selling a product which has no close substitutes.
- **Example: RAILWAY IN INDIA**

FEATURES OF MONOPOLY:

A monopoly is a market structure in which a single firm dominates the market for a particular product or service. The key features of a monopoly include:

1. **Single seller**: There is only one seller in the market, and it has complete control over the supply of the product or service.
2. **Unique product**: The product or service offered by the monopolist is unique and has no close substitutes. This means that consumers have no choice but to purchase from the monopolist.

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3. **High barriers to entry**: There are significant barriers to entry that prevent other firms from entering the market and competing with the monopolist. These barriers can be in the form of legal restrictions, high start-up costs, control over scarce resources, or other factors.
4. **Price maker**: The monopolist has complete control over the price of its product or service, and can charge a higher price than would prevail in a competitive market.
5. **Market power**: The monopolist has market power and can influence the market in ways that may not be in the best interest of consumers.

Reasons for Emergence of Monopoly:

A firm enjoys monopoly when it is the sole seller of its product and the product has no close substitutes. The fundamental cause of monopoly is the barrier to entry.

The various reasons for emergence of Monopoly are:

1. **Government licensing**: It means that before a firm can enter an industry, it needs to take permission from the government. Licensing is used to ensure minimum standards of competency. By not granting licenses to new firms, government aims to assure that only one firm operates in the market.

2.* Patent Rights*: Certain big private companies are engaged in research and development activities. At times, they come up with new products or new technologies. As a reward for their risk and investment in research, government grants them patent right. The period for which patent rights are granted is known as patent life.

3. Cartel*:* Under cartel, some firms retain their individual identities but coordinate their output and pricing policies in order to act as a monopoly. The firms agree among themselves to restrict their total output to the level that maximizes their joint profits. The most famous example of Cartel is 'Organisation of Petroleum Exporting Countries (OPEC)' formed in 1960, that led to virtual monopoly in the world market for oil.

Determination of Price under Monopoly:

- Under Monopoly every seller wants to earn maximum Profit.
- This fact Prof. Marshall has stated that monopolist wants to earn **"Maximum Monopoly Gain"** by selling his goods.

Now, the important question arises that how monopolist should fix his price, so that he may earn maximum profit? On this point two economists written above are of this opinion the price determination under monopoly condition is similar to those of perfect competition.

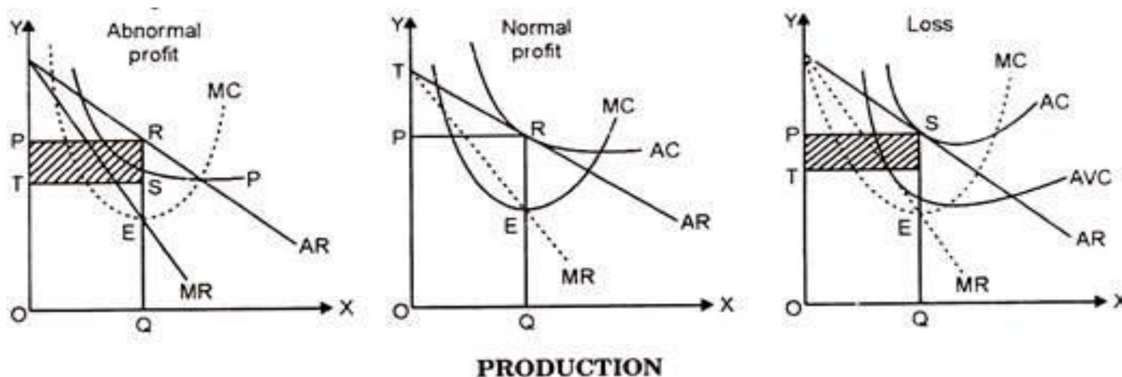
The only difference is that in perfect competition the average revenue curve and marginal revenue curve are same and parallel to X-axis where as in Monopoly these curves are downwards sloping curves. The Monopolist behaves like a firm. His aim is maximization of profits and if there are losses, then minimization of losses. The profits are maximized when marginal cost is equal to marginal revenue. The losses are minimum where marginal cost is equal to marginal revenue but afterwards marginal cost must be rising.

If, in a short period, the cost of production of a commodity is zero, he will go on producing it to the extent or so long the marginal revenue from the sale of that commodity does not fall to zero. As soon as the marginal reserve is zero he will not increase its supply.

Some economists think that, in a short period, three different situations may arise before the monopolist:

(i) When the monopolist earns abnormal profits,
(ii) When he gets only normal profits, and
(iii) When he suffers losses.

The explanation and diagrams of these situations are given below:



PRODUCTION

On the point E the firm is in equilibrium when MC = MR. Thereafter MC curve starts to rise. Under the condition, OP is the price and OQ is the 'total production' of the commodity so determined. In order to calculate profits or losses, we will have to measure the difference between AR and AC. If AR > AC, the difference between the two is profit per unit and by multiply it with total number of units produced we can get total profit.

In the first figure RQ = OP is the price, TO is the cost of production per unit. Thus, RS =PT is unit for profit. On the OQ quantity of production, total profit is PTSR shaded area which is abnormal profit. In the second figure RQ = OP is the determined price and RQ is the average cost. Under this condition, there will be only normal profit.

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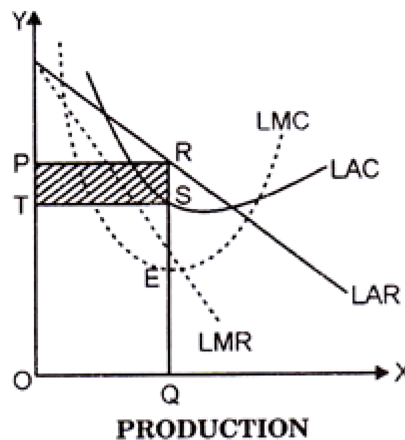
In the figure three also price per unit is RQ = OP but cost per unit is SQ. Thus, SR (TP) is loss per unit. As a result TPRS shaded area will be the total loss. But this loss is only short period phenomenon. In the long period, this loss will disappear, under that condition and situation, only profit will be earned.

Determination of Price in the Long Period:

In the long period the monopolist introduces changes in his equipment's and techniques of production. During this period in order to gain excess profit, he will change efficiency and capacity of his resources according to his need. But the determination of the quantity of production follows the same line as under short period.

This is clear from the following figure:



In this figure LMC and LMR intersect each other at the point E and after that LMC goes on rising. Thus OQ production is determined and OP is the price. But average cost is SQ. So profit per unit is RS and at OQ output the total profit is PTSR

- **Under Price Competition AR =MR, where-as under Monopoly MR <AR.**

What is Monopolistic Competition?

- Monopolistic competition refers to a market situation in which there are large numbers of firms which sell closely related but differentiated products. Market of products like **soap, toothpaste, AC etc is examples of monopolistic competition.**

EXAMPLE OF MONOPOLISTIC COMPETITION: TOOTHPASTE MARKET

When you walk into a departmental store to buy toothpaste, you will find a number of brands, like pepsodent, colgate, neem, babool, etc.

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- On one hand, the market for toothpaste seems to be full of competition, with thousands of competing brands and freedom of entry.
- On the other hand, its market seems to be monopolistic, due to uniqueness of each toothpaste and power to charge different price.

Such a market for toothpaste is a monopolistic competitive market.

Features of Monopolistic Competition:

1. Large Number of Buyers and Sellers:

There are large number of firms but not as large as under perfect competition.

That means each firm can control its price-output policy to some extent. It is assumed that any price-output policy of a firm will not get reaction from other firms that means each firm follows the independent price policy.

2. Free Entry and Exit of Firms:

- Like perfect competition, under monopolistic competition also, the firms can enter or exit freely. The firms will enter when the existing firms are making super-normal profits. With the entry of new firms, the supply would increase which would reduce the price and hence the existing firms will be left only with normal profits.
- Similarly, if the existing firms are sustaining losses, some of the marginal firms will exit. It will reduce the supply due to which price would rise and the existing firms will be left only with normal profit.

3. Product Differentiation:

- Another feature of the monopolistic competition is the product differentiation. Product differentiation refers to a situation when the buyers of the product differentiate the product with other.
- Basically, the products of different firms are not altogether different; they are slightly different from others.

4. Selling Cost:

- Another feature of the monopolistic competition is that every firm tries to promote its product by different types of expenditures.
- Advertisement is the most important constituent of the selling cost which affects demand as well as cost of the product.
- The main purpose of the monopolist is to earn maximum profits; therefore, he adjusts this type of expenditure accordingly.

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5. Less Mobility:

Under monopolistic competition both the factors of production as well as goods and services are not perfectly mobile.

6. More Elastic Demand:

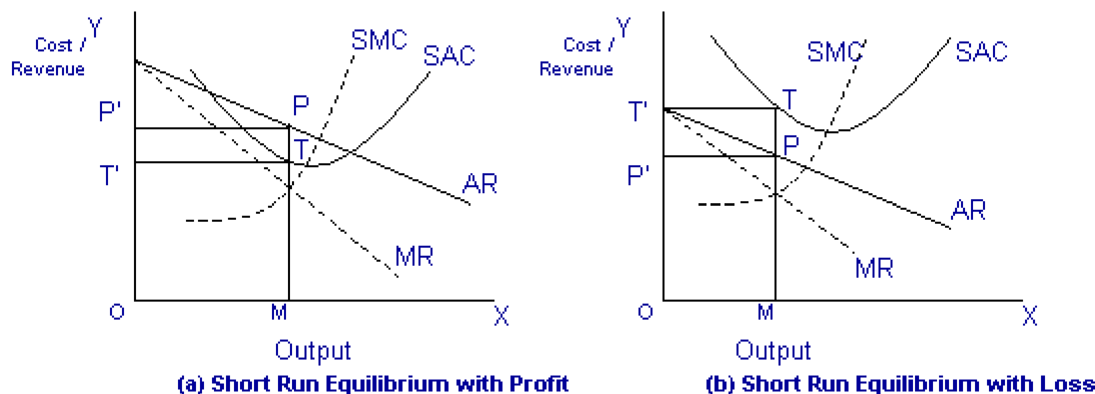
Under monopolistic competition, demand curve is more elastic. In order to sell more, the firms must reduce its price.

PRICE DETERMINATION UNDER MONOPOLISTIC COMPETITION:

Under monopolistic competition, the firm will be in equilibrium position when marginal revenue is equal to marginal cost. So long the marginal revenue is greater than marginal cost, the seller will find it profitable to expand his output, and if the MR is less than MC, it is obvious he will reduce his output where the MR is equal to MC. In short run, therefore, the firm will be in equilibrium when it is maximising profits, i.e., when MR = MC.

(a) Short Run Equilibrium:

Short run equilibrium is illustrated in the following diagram:



(a) Short Run Equilibrium with Profit (b) Short Run Equilibrium with Loss

In the above diagram, the short run average cost is MT and short run average revenue is MP. Since the AR curve is above the AC curve, therefore, the profit is shown as PT. PT is the supernormal profit per unit of output. Total supernormal profit will be measured by multiplying the supernormal profit to the total output, i.e. PT × OM or PTT'P' as shown in figure (a). The firm may also incur losses in the short run if it is facing AR curve below the AC curve. In figure (b) MP is less than MT and TP is the loss per unit of output. Total loss will be measured by multiplying loss per unit of output to the total output, i.e., TP × OM or TPP'T'.

(b) Long Run Equilibrium:

- Under monopolistic competition, the supernormal profit in the long run is disappeared as new firms are entered into the industry. As the new firms are entered into the industry, the demand curve or AR curve will shift to the left, and therefore, the supernormal profit will be competed away and the firms will be earning normal profits.
- If in the short run firms are suffering from losses, then in the long run some firms will leave the industry so that remaining firms are earning normal profits.

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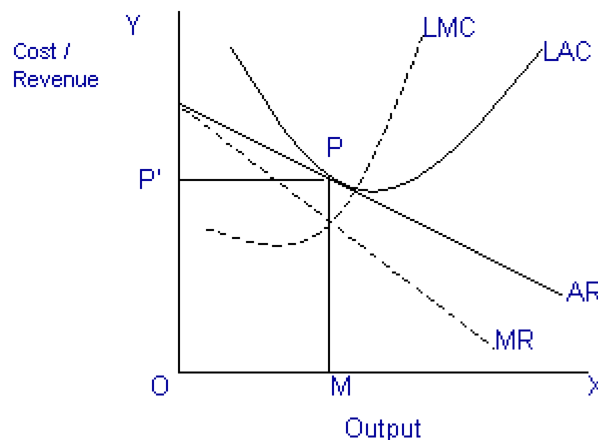
Unit 3: REVENUE

The AR curve in the long run will be more elastic, since a large number of substitutes will be available in the long run. Therefore, in the long run, equilibrium is established when firms are earning only normal profits. Now profits are normal only when AR = AC. It is further illustrated in the following diagram:



Long Run Equilibrium in Monopolistic Competition

REFERENCE:

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1. What is total revenue (TR)?
a) The revenue earned from selling one unit of a product
b) The revenue earned from selling all units of a product
c) The revenue earned from selling additional units of a product
d) The revenue earned from selling complementary products

Answer: b) The revenue earned from selling all units of a product

2. Which of the following equations represents total revenue (TR)?
a) TR = Price × Quantity
b) TR = Price ÷ Quantity
c) TR = Quantity × (Price - Cost)
d) TR = Price + Cost

Answer: a) TR = Price × Quantity

3 .Average revenue (AR) is calculated by:
a) Dividing total revenue by the quantity sold
b) Adding total revenue and quantity sold
c) Multiplying total revenue by the quantity sold
d) Subtracting total revenue from the quantity sold

Answer: a) Dividing total revenue by the quantity sold

4. What does marginal revenue (MR) represent?
a) The additional revenue earned from selling one more unit of a product
b) The total revenue earned from all units sold
c) The average revenue earned per unit sold
d) The revenue earned from selling the last unit of a product

Answer: a) The additional revenue earned from selling one more unit of a product

5. How are the average revenue (AR) and marginal revenue (MR) curves related in a perfectly competitive market?
a) AR is always greater than MR
b) AR equals MR
c) AR is always less than MR
d) There is no relationship between AR and MR

Answer: b) AR equals MR

6. In a monopolistic market, the MR curve lies below the AR curve because:
a) The firm faces downward-sloping demand
b) The firm faces perfectly elastic demand
c) The firm faces perfectly inelastic demand

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d) The firm faces horizontal demand

Answer: a) The firm faces downward-sloping demand

7. Under perfect competition, what happens to marginal revenue (MR) as output increases?
a) MR remains constant
b) MR increases
c) MR decreases
d) MR becomes negative

Answer: a) MR remains constant

8. In which market structure does a firm have the least control over pricing?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: d) Perfect competition

9. In a monopolistic market, how does a firm determine its optimal level of output?
a) Where marginal revenue equals marginal cost
b) Where average revenue equals average cost
c) Where marginal revenue exceeds marginal cost
d) Where marginal revenue is zero

Answer: a) Where marginal revenue equals marginal cost

10. In which market structure does a firm face a perfectly elastic demand curve?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: d) Perfect competition

11. Which market structure typically results in the highest prices for consumers?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: a) Monopoly

12. Under perfect competition, what is the relationship between price and marginal revenue (MR)?
a) Price equals MR
b) Price is greater than MR
c) Price is less than MR
d) Price has no relationship with MR

Answer: a) Price equals MR

13. In which market structure does a firm face the steepest demand curve?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: a) Monopoly

14. What is the demand curve faced by a perfectly competitive firm?
a) Downward-sloping
b) Upward-sloping
c) Horizontal
d) Vertical

Answer: c) Horizontal

15. Under monopolistic competition, firms differentiate their products to:
a) Achieve economies of scale
b) Increase barriers to entry
c) Minimize production costs
d) Create brand loyalty and charge higher prices

Answer: d) Create brand loyalty and charge higher prices

16. What is the relationship between price and marginal revenue (MR) for a monopolistic firm?
a) Price equals MR
b) Price is greater than MR
c) Price is less than MR
d) Price has no relationship with MR

Answer: c) Price is less than MR

17. In which market structure is there the most competition?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: d) Perfect competition

18. Which market structure tends to have the fewest barriers to entry?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

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Answer: d) Perfect competition

19. Which of the following is a characteristic of monopolistic competition?
a) Many firms selling identical products
b) Few large firms dominating the market
c) Product differentiation
d) Price taker behavior

Answer: c) Product differentiation

20. What is the primary goal of a firm operating in a monopolistic competition?
a) Maximize total revenue
b) Maximize market share
c) Maximize profits
d) Minimize average costs

Answer: c) Maximize profits

21. In which market structure does a firm face a downward-sloping demand curve?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: a) Monopoly

22. Under oligopoly, firms often engage in:
a) Price competition
b) Product differentiation
c) Collusive behavior
d) Perfectly competitive behavior

Answer: c) Collusive behavior

23. Which market structure has the highest level of product differentiation?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: c) Monopolistic competition

24. What is the demand curve faced by a monopolistic firm?
a) Downward-sloping
b) Upward-sloping
c) Horizontal
d) Vertical

Answer: a) Downward-sloping

25. Which market structure has the highest barriers to entry?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: a) Monopoly

26.Which market structure often results in the highest level of innovation?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: c) Monopolistic competition

27.Which of the following is a characteristic of a perfectly competitive market?
a) Product differentiation
b) Many firms selling identical products
c) High barriers to entry
d) Price-setting power

Answer: b) Many firms selling identical products

28.In which market structure does a firm face a kinked demand curve?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: b) Oligopoly

29.Which market structure tends to result in the highest level of advertising?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: c) Monopolistic competition

30.Which market structure often results in non-price competition?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: c) Monopolistic competition

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31. In which market structure is there the least amount of product differentiation?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: d) Perfect competition

32. Which market structure tends to result in the highest level of efficiency?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: d) Perfect competition

33. Which market structure tends to result in the lowest prices for consumers?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: d) Perfect competition

34. Which market structure often results in the highest level of government regulation?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: a) Monopoly

35. In which market structure does a firm have the most control over pricing?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: a) Monopoly

36. Which market structure often results in excess capacity?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: c) Monopolistic competition

37. In which market structure do firms have the most incentive to engage in research and development?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: b) Oligopoly

38. In which market structure do firms have the least incentive to innovate?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: d) Perfect competition

39. Which market structure often results in the highest level of economies of scale?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: a) Monopoly

40. Which market structure often results in the highest level of brand loyalty?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: c) Monopolistic competition

41. In which market structure are prices typically set through negotiation or collusion?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: b) Oligopoly

42. Which market structure tends to result in the highest level of excess profits?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: a) Monopoly

43. Which market structure often results in the highest level of product variety?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: c) Monopolistic competition

44. In which market structure do firms face the most elastic demand curve?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: d) Perfect competition

45. Which market structure tends to have the most stable prices over time?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: a) Monopoly

46. Which market structure often results in the highest level of consumer surplus?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: d) Perfect competition

47. In which market structure is there the highest level of interdependence among firms?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: b) Oligopoly

48. Which market structure often results in the highest level of deadweight loss?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: a) Monopoly

49. Which market structure often results in the highest level of consumer surplus?

a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: d) Perfect competition

50. In which market structure is there the most potential for collusion among firms?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: b) Oligopoly

51. In perfect competition, a firm is said to be in equilibrium when:
a) Marginal revenue equals marginal cost
b) Average revenue equals marginal cost
c) Total revenue equals total cost
d) Price equals average total cost

Answer: a) Marginal revenue equals marginal cost

52. In perfect competition, long-run equilibrium occurs when:
a) Firms are earning supernormal profits
b) Firms are earning normal profits
c) Firms are incurring losses
d) Firms are maximizing revenue

Answer: b) Firms are earning normal profits

53. What happens to the number of firms in a perfectly competitive industry in the long run?
a) It increases
b) It decreases
c) It remains constant
d) It fluctuates

Answer: c) It remains constant

54. In the long run, a perfectly competitive firm's economic profit tends to:
a) Increase
b) Decrease
c) Remain constant
d) Equal zero

Answer: d) Equal zero

55. Which of the following is true about the demand curve facing a perfectly competitive firm?
a) It is downward-sloping

b) It is horizontal
c) It is upward-sloping
d) It is vertical

Answer: b) It is horizontal

56. In perfect competition, how does a firm determine its optimal level of output?
a) Where marginal cost equals average total cost
b) Where marginal revenue equals marginal cost
c) Where average revenue equals average cost
d) Where price equals marginal cost

Answer: b) Where marginal revenue equals marginal cost

57. Which of the following is a characteristic of a perfectly competitive market?
a) Product differentiation
b) High barriers to entry
c) Many firms selling identical products
d) Price-setting power

Answer: c) Many firms selling identical products

58. In the short run, if a perfectly competitive firm is earning supernormal profits, what will happen in the long run?
a) New firms will enter the industry, driving down prices
b) Existing firms will exit the industry, driving up prices
c) Government regulation will prevent firms from earning excess profits
d) The firm will continue to earn supernormal profits indefinitely

Answer: a) New firms will enter the industry, driving down prices

59. What is the shutdown point for a perfectly competitive firm in the short run?
a) Where total revenue equals total variable cost
b) Where total revenue equals total cost
c) Where marginal cost equals marginal revenue
d) Where average total cost equals average variable cost

Answer: a) Where total revenue equals total variable cost

60. Which of the following statements is true about the long-run supply curve of a perfectly competitive industry?
a) It is upward-sloping
b) It is downward-sloping
c) It is horizontal
d) It is vertical

Answer: c) It is horizontal

61. Price discrimination under monopoly refers to:
a) Setting different prices for different products
b) Charging different prices to different customers for the same product
c) Collaborating with other firms to set prices
d) Offering discounts to loyal customers

Answer: b) Charging different prices to different customers for the same product

62. Which of the following conditions is necessary for a monopoly to engage in price discrimination?
a) Perfectly elastic demand
b) Perfectly inelastic demand
c) Different price elasticities of demand in different market segments
d) Homogeneous market segments

Answer: c) Different price elasticities of demand in different market segments

63. In first-degree price discrimination, the monopolist:
a) Charges different prices for different units of the same product
b) Separates the market into different segments and charges each segment a different price
c) Charges each customer the maximum price they are willing to pay
d) Offers discounts to bulk buyers

Answer: c) Charges each customer the maximum price they are willing to pay

64. What is a potential disadvantage of price discrimination for consumers?
a) Higher prices for everyone
b) Lower prices for everyone
c) Increased competition
d) More choices available

Answer: a) Higher prices for everyone

65. Which of the following is an example of third-degree price discrimination?
a) Student discounts at a movie theater
b) Loyalty rewards for frequent shoppers
c) Variable pricing based on time of purchase
d) Senior citizen discounts at a restaurant

Answer: d) Senior citizen discounts at a restaurant

66. What is the primary goal of price discrimination for monopolists?
a) Maximizing revenue
b) Minimizing costs
c) Achieving allocative efficiency
d) Capturing consumer surplus

Answer: a) Maximizing revenue

67. What is the key condition for a monopoly to engage in successful price discrimination?
a) Elastic demand in all market segments
b) Homogeneous market segments
c) Different price elasticities of demand in different market segments
d) Identical market segments

Answer: c) Different price elasticities of demand in different market segments

68. Which type of price discrimination is most common in the real world?
a) First-degree price discrimination
b) Second-degree price discrimination
c) Third-degree price discrimination
d) Perfect price discrimination

Answer: c) Third-degree price discrimination

69. How does price discrimination affect consumer surplus?
a) It increases consumer surplus
b) It decreases consumer surplus
c) It has no effect on consumer surplus
d) It eliminates consumer surplus

Answer: b) It decreases consumer surplus

70. Which of the following is a condition for successful price discrimination?
a) Identical market segments
b) Homogeneous products
c) Different price elasticities of demand in different market segments
d) Perfect competition

Answer: c) Different price elasticities of demand in different market segments

71. In monopolistic competition, firms face a:
a) Downward-sloping demand curve
b) Upward-sloping demand curve
c) Horizontal demand curve
d) Vertical demand curve

Answer: a) Downward-sloping demand curve

72. Which of the following is true about product differentiation in monopolistic competition?
a) Products are identical
b) Products are perfect substitutes
c) Products are similar but not identical
d) Products are homogeneous

Answer: c) Products are similar but not identical

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73. What is the relationship between price and marginal revenue (MR) for a firm in monopolistic competition?
a) Price equals MR
b) Price is greater than MR
c) Price is less than MR
d) Price has no relationship with MR

Answer: c) Price is less than MR

74. In monopolistic competition, firms maximize profit by producing where:
a) Marginal revenue equals marginal cost
b) Average revenue equals average cost
c) Marginal revenue equals average revenue
d) Price equals marginal cost

Answer: a) Marginal revenue equals marginal cost

75. Which of the following is a characteristic of monopolistic competition?
a) Many firms selling identical products
b) Few large firms dominating the market
c) Product differentiation
d) Price taker behavior

Answer: c) Product differentiation

76. In the long run, firms in monopolistic competition tend to:
a) Earn supernormal profits
b) Earn normal profits
c) Incur losses
d) Shut down

Answer: b) Earn normal profits

77. Which of the following is a potential consequence of excess capacity in monopolistic competition?
a) Lower prices for consumers
b) Higher prices for consumers
c) Increased competition
d) Increased efficiency

Answer: b) Higher prices for consumers

78. In monopolistic competition, firms have some degree of market power, which means they can:
a) Influence market price
b) Set price equal to marginal cost
c) Earn supernormal profits in the long run
d) Ignore competition

Answer: a) Influence market price

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79. In the long run, if a firm in monopolistic competition is earning economic profits, what will happen?
a) New firms will enter the market, increasing competition
b) Existing firms will exit the market, decreasing competition
c) The firm will continue to earn profits indefinitely
d) The government will regulate prices

Answer: a) New firms will enter the market, increasing competition

80. What is the primary goal of firms in monopolistic competition?
a) Maximizing revenue
b) Maximizing market share
c) Maximizing profits
d) Minimizing costs

Answer: c) Maximizing profits

81. Which of the following is a potential disadvantage of monopolistic competition?
a) Lack of product variety
b) Inefficient use of resources
c) High barriers to entry
d) Limited consumer choice

Answer: b) Inefficient use of resources

82. In the long run, what happens to the demand curve faced by a firm in monopolistic competition?
a) It becomes perfectly elastic
b) It becomes perfectly inelastic
c) It becomes more elastic
d) It remains the same

Answer: d) It remains the same

83. Which market structure tends to result in the highest level of advertising?
a) Monopoly
b) Oligopoly
c) Monopolistic competition
d) Perfect competition

Answer: c) Monopolistic competition

84. Which of the following is a characteristic of monopolistic competition?
a) Few firms
b) Identical products
c) No product differentiation
d) Low barriers to entry

Answer: d) Low barriers to entry

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85. What is a potential disadvantage of product differentiation in monopolistic competition?
a) Increased competition
b) Lower prices for consumers
c) Reduced consumer choice
d) Higher profits for firms

Answer: c) Reduced consumer choice

86. In monopolistic competition, how does a firm differentiate its product from competitors?
a) By offering lower prices than competitors
b) By producing identical products
c) By focusing on cost minimization
d) By creating unique features or branding

Answer: d) By creating unique features or branding

87. What is a potential consequence of excess capacity in monopolistic competition?
a) Lower prices for consumers
b) Higher prices for consumers
c) Increased competition
d) Increased efficiency

Answer: b) Higher prices for consumers

88. In the long run, what happens to the demand curve faced by a firm in monopolistic competition?
a) It becomes perfectly elastic
b) It becomes perfectly inelastic
c) It becomes more elastic
d) It remains the same

Answer: d) It remains the same

89. What is a potential disadvantage of monopolistic competition?
a) Lack of product variety
b) Inefficient use of resources
c) High barriers to entry
d) Limited consumer choice

Answer: b) Inefficient use of resources

90. In the long run, firms in monopolistic competition tend to:
a) Earn supernormal profits
b) Earn normal profits
c) Incur losses
d) Shut down

Answer: b) Earn normal profits

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91. In perfect competition, how does a firm determine its optimal level of output?
a) Where marginal cost equals average total cost
b) Where marginal revenue equals marginal cost
c) Where average revenue equals average cost
d) Where price equals marginal cost

Answer: b) Where marginal revenue equals marginal cost

92. What is the key characteristic of a monopoly market structure?
a) One seller and many buyers
b) Many sellers and many buyers
c) Homogeneous products
d) Perfect competition

Answer: a) One seller and many buyers

93. In a monopoly, what is the shape of the demand curve?
a) Horizontal
b) Downward-sloping
c) Vertical
d) Upward-sloping

Answer: b) Downward-sloping

94. Which of the following is true about a monopolist's marginal revenue (MR) curve?
a) It lies above the demand curve
b) It lies below the demand curve
c) It is perfectly elastic
d) It is perfectly inelastic

Answer: b) It lies below the demand curve

95. What is a potential consequence of excess capacity in monopolistic competition?
a) Lower prices for consumers
b) Higher prices for consumers
c) Increased competition
d) Increased efficiency

Answer: b) Higher prices for consumers

96. In monopolistic competition, how does a firm maximize profit in the long run?
a) By producing at the minimum of the average total cost curve
b) By producing where marginal revenue equals marginal cost
c) By producing where average revenue equals average cost
d) By producing where price equals marginal cost

Answer: c) By producing where average revenue equals average cost

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97. What is a distinguishing feature of monopolistic competition compared to perfect competition and monopoly?
a) Homogeneous products
b) One seller
c) Product differentiation
d) Price-setting power

Answer: c) Product differentiation

98.In monopolistic competition, what happens to the demand curve facing the firm in the long run?
a) It becomes perfectly elastic
b) It becomes perfectly inelastic
c) It becomes more elastic
d) It remains the same

Answer: d) It remains the same