Solved question paper 2019-Managerial Economics

Mba Finance (University of Mysore)

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Managerial Economics-2019

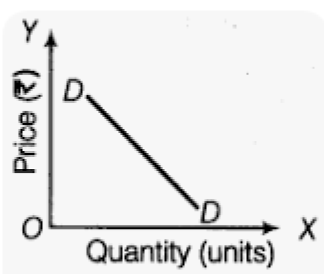
Sec-A

1) Define law of demand. Explain exception to the law of demand?

Answer:

Introduction: Law of Demand The law states that other things remaining constant, quantity demanded of a commodity increases with a fall in its own price and diminishes with a rise in its own price, i.e. there exist a inverse relationship between price and quantity demanded.

Definition: The law of demand **states that other factors being constant (cetris peribus), price and quantity demand of any good and service are inversely related to each other**. When the price of a product increases, the demand for the same product will fall.



Demand curve

In microeconomics, the law of demand is a fundamental principle which states that there is an inverse relationship between price and quantity demanded.

The law of demand dictates that **when prices go up, demand goes down – and when prices go down, demand goes up**.

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For instance, a baker sells bread rolls for $1 each. They sell 50 each day at that price. However, when the baker decides to increase to price to $1.20 – they only sell 40.

Exceptions to the law of demand:

There are certain situations where the law of demand does not apply or becomes ineffective, i.e. with a fall in the price the demand falls and with the rise in price the demand rises are called as the **exceptions to the law of demand**.

1. Giffen Goods: Giffen goods are the inferior goods whose demand increases with the increase in its prices.

2. **Veblen Goods:** goods like a diamond, platinum, ruby, etc. are bought by the upper echelons of the society (rich class) for whom the higher the

price of these goods, the higher is the prestige value and ultimately the higher is the utility or desirability of them.

3. **Expectation of Price Change in Future**: When the consumer expects that the price of a commodity is likely to further increase in the future, then he will buy more of it despite its increased price in order to escape himself from the pinch of much higher price in the future.

4. **Ignorance**: Often people are misconceived as high-priced commodities are better than the low-priced commodities and rest their purchase decision on such a notion.

5. **Emergencies**: During emergencies such as war, natural calamity- flood, drought, earthquake, etc., the law of demand becomes ineffective.

6. **Change in fashion and Tastes & Preferences**: The change in fashion trend and tastes and preferences of the consumers negates the effect of law of demand.

7. **Conspicuous Necessities**: There are certain commodities which have become essentials of the modern life. These are the goods which consumer buys irrespective of an increase in the price. For example TV, refrigerator, automobiles, washing machines, air conditioners, etc.

8. **Bandwagon Effect**: Here, the person tries to emulate the buying behavior and patterns of the group to which he belongs irrespective of the price of the commodity.

For example, if the majority of group members have smart phones then the consumer will also demand for the smart phone even if the prices are high.

Conclusion: The law of demand states that quantity purchased varies inversely with price. In other words, the higher the price, the lower the quantity demanded.

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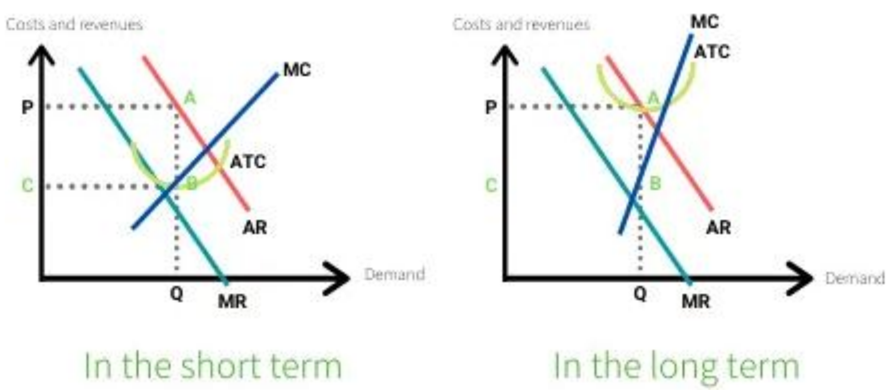
2) What is monopolistic competition? Give examples

Answer:

Introduction: Monopolistic competition definition says that it stands for an industry in which many firms service similar products which are not a perfect substitute. There are very low barriers to entry or exit in monopolistic competition. In this competition, one firm decision doesn't affect the whole industry or another firm. Monopolistic competition is just related to the business strategy of brand variation.

This can be illustrated as below:



Meaning

Monopolistic competition means monopoly plus a perfect competition. This market is a perfect mixture of monopoly and perfect competition. This industry is one of the best classical monopolistic competition examples.

Monopolistic competition is half monopoly half and perfect competition. It combines elements of both in a theoretical state. In this competition, every brand tries to make its own unique product, and they make it slightly different from other brands of the same item. While we are judging them roughly, there is no difference as such. Although when we examine them closely, we can find some little difference between different brand products.

If we take the soap brands of India as monopolistic competition examples, it can be easily revealed the idea of monopolistic competition. Though all the soap brands such as Lux, Dove, Vivel, Fiama, Pears produce the same item, They contain some different features from others in their product to make it unique.
Monopolistic competition is a market circumstance in which many vendors compete for the same product, but each seller's product differs in some way from every other seller's product in the minds of consumers.'

As a result, each seller is a monopolist of his 'differentiated product' under this market system. Buyers can only acquire a specific product from him. However, there are a number of close replacements available on the market.

As a result, shoppers compare the pricing of products as well as their perceived quality. As a result, there is competition among sellers for market share. As you can see, in this market structure, a set of companies compete against one another while maintaining monopolies over their own products.

Example of Monopolistic market is:

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i) Grocery stores: Grocery stores exist within a monopolistic market as there are a large number of firms that sell many of the same goods but with distinct branding and marketing.

ii) Hotels: Hotels offer a prime example of monopolistic competition.

Conclusion: Monopolistic competition characterizes an industry in which many firms offer products or services that are similar (but not perfect) substitutes. Barriers to entry and exit in a monopolistic competitive industry are low, and the decisions of any one firm do not directly affect those of its competitors.

3) Explain the law of marginal utility.

Answer:

Intro: The law of diminishing marginal utility states that all else equal, as consumption increases, the marginal utility derived from each additional unit declines. Marginal utility is the incremental increase in utility that results from the consumption of one additional unit. "Utility" is an economic term used to represent satisfaction or happiness.

- The law of diminishing marginal utility says that the marginal utility from each additional unit declines as consumption increases.[1]
- The marginal utility can decline into negative utility, as it may become entirely unfavorable to consume another unit of any product.
- The marginal utility may decrease into negative utility, as it may become entirely unfavorable to consume another unit of any product.

Definition:

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According to Marshall, 'The additional benefit which a person derives from a given increase of his stock of a thing diminishes with every increase in the stock that he already has'.

An individual consumes only one commodity X and its utility is measured quantitatively. The total utility and marginal utility schedules are as shown in Table 1.

UNITS OF COMMODITY X	TOTAL UTILITY (TUX)	MARGINAL UTILITY (MUX)
1	30	30
2	50	30
3	60	20
4	65	10
5	60	5
6	45	-5

Table 1 shows that as the number of units of commodity X consumed per unit of time increases, TUx increases but at a diminishing rate while marginal utility MUx decreases consistently. The rate of increase in TUx as a result of increase in the number of units consumed has been depicted through the MUx curve in the graph shown in Figure

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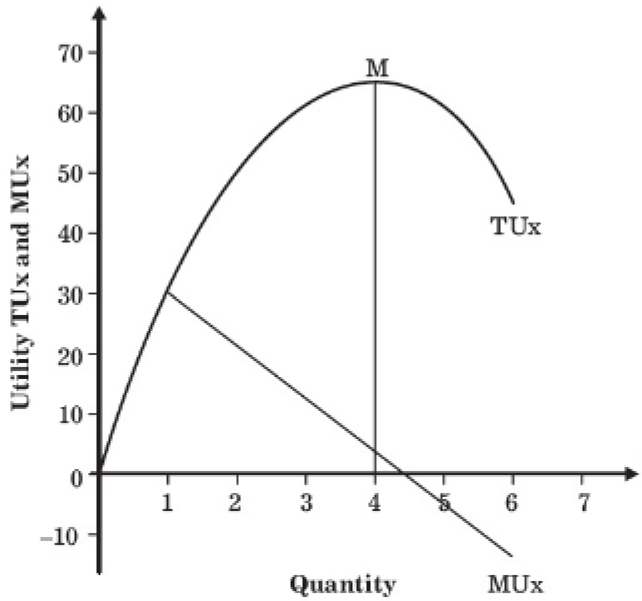

In Figure, the downward sloping MUx curve shows that the marginal utility of a commodity consistently decreases as its consumption increases. When the consumption reaches to 4 units of commodity X, TUx reaches its maximum level (the point of saturation) marked as M.

Beyond the point of saturation, MUx becomes negative and TUx begins to decline consistently. The downward slope of MUx explains the law of diminishing marginal utility. Therefore, according to the law of diminishing marginal utility, the utility gained from a unit of a commodity is dependent on the consumer's desire for the commodity.

Conclusion: When an individual continues to consume additional units of a commodity, the satisfaction that he/she derives from the consumption keeps decreasing. This is because his/ her need gets satisfied in the process of consumption. Therefore, the utility derived from successive units of the commodity decreases.

4) What is Price leadership? Explain it types

Answer: Price Leadership is a scenario where one firm sets the prices, and other companies in that industry follow the same price. The firm that sets the price is usually the firm that is dominant in that industry. Other companies in the industry are free to decide, i.e., they may or may not follow the price set by the dominant firm. But, they do follow the dominant firm pricing because if they do not, they risk losing their market share or profitability.

The firm that sets the price is the price leader. The price leadership model is common in industries with oligopolistic market conditions. A good and most popular example of such an industry and situation is the airline industry.

Types of price leadership:

1.Barometric

In such leadership, there is usually a firm that is more capable of recognizing the market trends. Thus, such a company is able to adjust to the changes in time and sets a price that others need to follow.

2. Collusive

Collusive pricing is a type of price leadership that exists in the oligopolistic industry, or where the cost of entry is very high. In this, the dominant firms in the industry enter into an explicit or implicit agreement over the price. And the smaller players in that industry segment have no option but to follow the dominant firm in the price trend.

3. Dominant

As is evident, such leadership involves the price setting by a dominant firm. The dominant firm is usually the one with the majority market share. We may also call this as a partial monopoly. In such a model, it is possible that the dominant firm engages in predatory pricing with an objective to drive out smaller firms from the industry. Such type of leadership is illegal in most countries.

Example of price leadership: Apple Brand

Price Leaders tend to drive prices higher. They add more value, differentiate their products, segment their markets, and strive to win at higher prices. **Apple is certainly a price leader**.

5) **Define Business Cycle? Explain various phases of business cycle**.

- **Answer**: Introduction:
- Businesses are principal components of a modern economy. They engage in the production, distribution and sale of goods and services. There are many kinds of businesses, from farms and factories to firms selling services like insurance.
- Their level of economic activity fluctuates – over time it will increase or decrease, and then decrease or increase again. When fluctuations in many different businesses coincide, a cycle can be identified. Every business cycle has a peak and a trough. There is an expansion phase between its trough and peak, and a contraction phase between its peak and trough.
- **Definition:**

  John Keynes explains:
- “The occurrence of business cycles is a result of fluctuations in aggregate demand, which bring the economy to short-term

equilibriums that are different from a full-employment equilibrium"

There are two types of business cycle:

- The classical cycle refers to rises and falls in total production.
- The growth cycle is concerned with fluctuations in the growth rate of production.

- The below diagram explains the stages of Business Cycle in economics:
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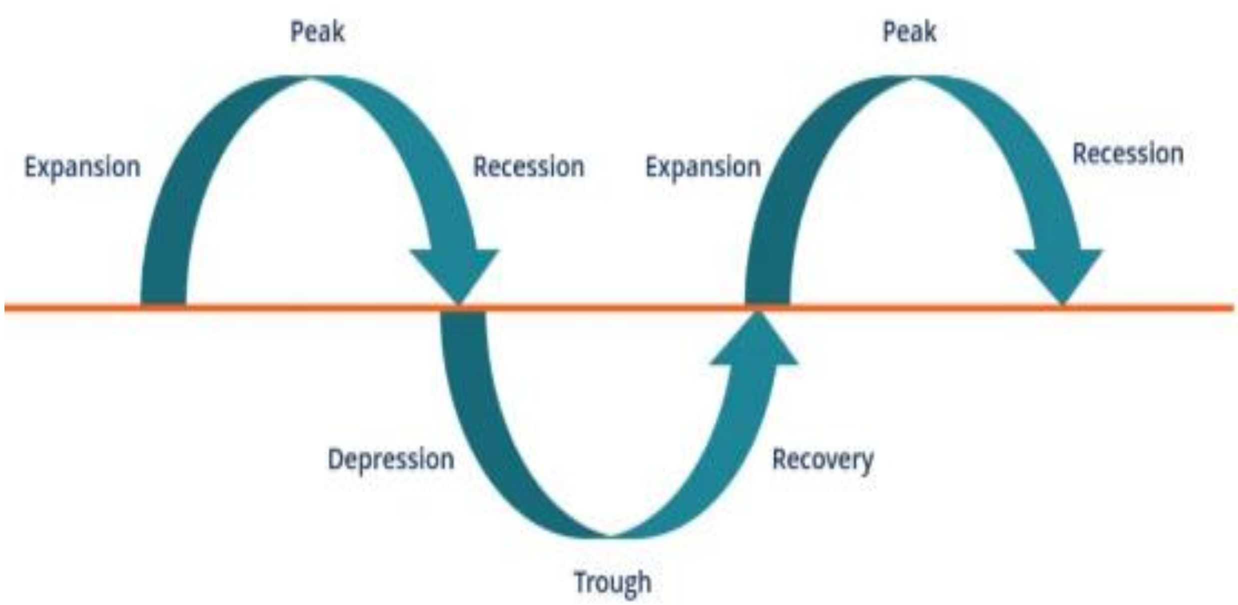

- **1. Expansion**
- The first stage in the business cycle is expansion. In this stage, there is an increase in positive economic indicators such as

employment, income, output, wages, profits, demand, and supply of goods and services.

- Debtors are generally paying their debts on time, the velocity of the money supply is high, and investment is high.
- This process continues as long as economic conditions are favorable for expansion.
- **Peak**
- The economy then reaches a saturation point, or peak, which is the second stage of the business cycle. The maximum limit of growth is attained. The economic indicators do not grow further and are at their highest. Prices are at their peak. This stage marks the reversal point in the trend of economic growth. Consumers tend to restructure their budgets at this point.
- **3. Recession**
- The recession is the stage that follows the peak phase. The demand for goods and services starts declining rapidly and steadily in this phase. Producers do not notice the decrease in demand instantly and go on producing, which creates a situation of excess supply in the market. Prices tend to fall. All positive economic indicators such as income, output, wages, etc., consequently start to fall.
- **4. Depression**
- There is a commensurate rise in unemployment. The growth in the economy continues to decline, and as this falls below the steady growth line, the stage is called a depression.
- **5. Trough**

- In the depression stage, the economy's growth rate becomes negative. There is further decline until the prices of factors, as well as the demand and supply of goods and services, contract to reach their lowest point. The economy eventually reaches the trough. It is the negative saturation point for an economy. There is extensive depletion of national income and expenditure.
- **6. Recovery**
- After the trough, the economy moves to the stage of recovery. In this phase, there is a turnaround in the economy, and it begins to recover from the negative growth rate. Demand starts to pick up due to low prices and, consequently, supply begins to increase. The population develops a positive attitude towards investment and employment and production starts increasing.
- Employment begins to rise and, due to accumulated cash balances with the bankers, lending also shows positive signals. In this phase, depreciated capital is replaced, leading to new investments in the production process. Recovery continues until the economy returns to steady growth levels.
- This completes one full business cycle of boom and contraction. The extreme points are the peak and the trough.

Conclusion: Business Cycle are comprised of concerted cyclical upswings and downswings in the broad measures of economic activity—output, employment, income, and sales.

Sec-B

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6) Discuss the various types of costs in detail.

Answer:

Intro: Cost denotes the amount of money that a company spends on the creation or production of goods or services. It does not include the markup for profit. From a seller's point of view, cost is the amount of money that is spent to produce a good or product.

Types of Cost:

1. Opportunity Costs

Opportunity cost is also referred to as **alternative cost**. Organizations tend to utilize their limited resources for the most productive alternative and forgo the income expected from the second-best use of these resources.
Opportunity cost may be defined as the return from the second-best use of the firm's limited resources, which it forgoes in order to benefit from the best use of these resources.

Example: Let us assume that an organisation has a capital resource of 1,00,000 and two alternative courses to choose from. It can either purchase a printing machine or photo copier, both having a productive life span of 12 years.

2. Explicit costs

Explicit costs, also referred to as **actual costs**, include those payments that the employer makes to purchase or own the factors of production. These costs comprise payments for raw materials, interest paid on loans, rent paid for leased building or machinery and taxes paid to the government.
An explicit cost is one that has occurred and is clearly reported in accounting books as a separate cost.

Example: if an organisation borrows a sum of 70,00,000 at an interest rate of 4% per year, the interest cost of 2,80,000 per year would be an explicit cost for the organisation.

3. Implicit costs

Unlike explicit costs, there are certain other costs that cannot be reported as cash outlays in accounting books. These costs are referred to as implicit costs. Opportunity costs are examples of implicit cost borne by an organisation.

Example: An employee in an organisation takes a vacation to travel to his relative's place. In this case, the implicit costs borne by the employee would be the salary that the employee could have earned if he/she had not taken the leave. Implicit costs are added to the explicit cost to establish a true estimate of the cost of production. Implicit costs are also referred to as imputed costs, implied costs or notional costs.

4. Accounting costs

Accounting costs include the financial expenditure incurred by a firm in acquiring inputs for the production of a commodity. These expenditures include salaries/wages of labor, payment for the purchase of raw materials and machinery, etc.

Accounting costs are recorded in the books of accounts of a firm and appear on the firm's income statement. Accounting costs include all explicit costs along with certain implicit costs of an organisation.

Example: depreciation expenses (implicit cost) are included in the books of account as a firm's accounting costs.

5. Economic costs

Economic costs include the total cost of opting for one alternative over another.

The concept of economic costs is similar that of opportunity costs or implicit costs with the only difference that economic costs include the accounting cost (or explicit cost) as well as the opportunity cost (or implicit cost) incurred to carry out an action over the forgone action.

Example: if the economic cost of the employee in the above example would include his/her week's pay as well as the expense incurred on the vacation.

6. Business costs

Business costs include all the expenditures incurred to carry out a business. The concept of business cost is similar to the explicit costs.

Business costs comprise all the payments and contractual obligations made by a business, added to the book cost of depreciation of plant and equipment. These costs are used to calculate the profit or loss made by a business, filing for income tax returns and other legal procedures.

7. Full costs

The full costs include business costs, opportunity costs, and normal profit. Full costs of an organisation include cost of materials, labour and both variable and fixed manufacturing overheads that are required to produce a commodity.

8. Fixed costs

Fixed costs refer to the costs borne by a firm that do not change with changes in the output level. Even if the firm does not produce anything, its fixed costs would still remain the same.

Example: depreciation, administrative costs, rent of land and buildings, taxes, etc. are fixed costs of a firm that remain unchanged even though the firm's output changes. However, if the time period under consideration is long enough to make alterations in the firm's capacity, the fixed costs may also vary.

9. Variable costs

Variable costs refer to the costs that are directly dependent on the output level of the firm. In other words, variable costs vary with the changes in the volume or level of output.

Example: if an organisation increases its level of output, it would require more raw materials. Cost of raw material is a variable cost for the firm.
Other examples of variable costs are labour expenses, maintenance costs of fixed assets, routine maintenance expenditure, etc. However, the change in variable costs with changes in output level may not necessarily be in the same proportion.

10. Incremental costs

Incremental costs involve the additional costs resulting due to a change in the nature of level of business activity.

It characterizes the additional cost that would have not been incurred if an additional unit was not produced. As these costs may be avoided by avoiding the possible variation in the production, they are also referred to as avoidable costs or escapable costs.

Example: if a production house has to run for additional two hours, the electricity consumed during the extra hours is an additional cost to the production house. The incremental cost comprises the variable costs.

Conclusion: cost, in common usage, **the monetary value of goods and services that producers and consumers purchase**. In a basic economic sense, cost is the measure of the alternative opportunities foregone in the choice of one good or activity over others. This fundamental cost is usually referred to as opportunity cost.

7) Explain the characteristics features of monopolistic completion.

Answer:

Intro: Monopolistic Competition-Monopolistic Competition is that condition of market in which there are many sellers of any commodity but commodity of every seller is different from commodities of other sellers in any way. Therefore, product differentiation is main quality of monopolistic competition

Characteristics of Monopolistic Competition Following are the main characteristics of Monopolistic Competition—

1. **Large Number of Firms and Buyers:** Firm producing differentiated product and sellers are large in numbers in monopolistic competition.

2. Product Differentiation: Product differentiation is the main feature of monopolistic competition. Product differentiation means that product of different types, brands, and qualities will be available to customers in a fixed time period. Product differentiation occurs when buyer of product can differentiate between two products. In this, firms are in large number but their products are different from each other in anyway, but these products are close substitutes of each other. Product differentiation is obtained due to characteristic of product like shape, measurement, colour, durability, quality etc. There are many examples of product differentiation like bath soaps Lux, Godrej, Camay, Rexona, etc.

3. **Freedom of Entry and Exit of Firms**: In the situation of monopolistic competition there is freedom of entry and exit of firms in the industry like perfect competition. It should be noticed that Chamberlin has used group at the place of industry for group of firms which produce differentiated products under the monopolistic competition.

4. Selling Cost: An important characteristic of monopolistic competition is that every firm spends more money in promoting its product under it. Firm gives advertisements in newspapers, cinemas, magazines, radio, T.V. etc. for selling its product in the maximum amount. The investment done on all these is called as Selling Costs.

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5. Price Control: Every firm has limited control on the cost of product. Average income and limit end income curve of a firm fall down like monopoly in monopolistic competition. It means that in this situation, firm can slow down the price for selling more products and raise price for fewer products. In monopolistic competition, a firm has control on cost of its production due to the product differentiation. But due to the availability of close substitute of opposite product firms do not have full control on cost in monopolistic competition. The cost of every firm is affected by cost policy of its competitors in market up to the certain limpghit.

6. **Limited Mobility:** In monopolistic competition, sources of production and products and do not have mobility in services.

7**. Imperfect Knowledge:** In the situation of monopolistic competition, buyers, sellers of products, and owners of sources do not have knowledge of different prices of product. The reason is that comparison between productions of different firms is not possible due to product differentiation. Customers are fond of the production of any one specific firm. They only buy the production of that firm even if it costs higher than others. In this way even sources of production are not able to know fully that how much the different firms are costing to the sources of services.

8. **Non-Price Competition:** The main characteristic of monopolistic competition is that under it different firms without changing the costs of products compete with each other like the example of companies producing 'Surf' and 'Ariel'. If you take a box of 'Surf', you will get a glass utensil similarly, with the box of 'Ariel' you will get the steel spoon. In this way, firms, by providing different types of facilities and products etc. to customers to attracts them toward their products. This type of competition is called as Non-Price Competition.

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This can be better illustrated with the graph:For short term and long term profit

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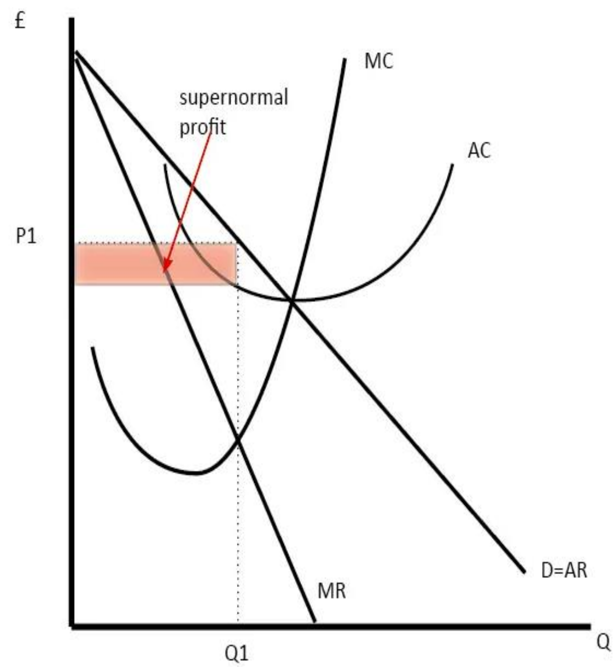

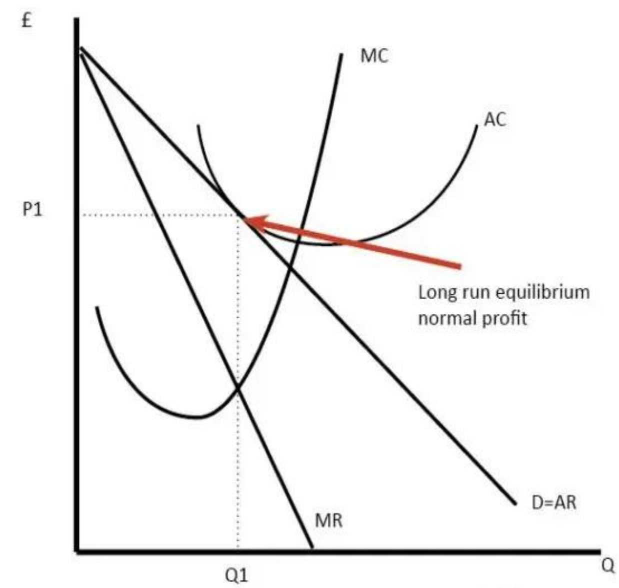

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Conclusion: Under, the **Monopolistic Competition**, there are a large number of firms that produce differentiated products which are close substitutes for each other. In other words, large sellers selling the products that are similar, but not identical and compete with each other on other factors besides price.

- The monopolistic competition is also called as **imperfect competition**

8) **Define GDP? Which are the different methods used for its accounting?**

Answer:

Intro: Gross domestic product (GDP) is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period. As a broad measure of overall domestic production, it functions as a comprehensive scorecard of a given country's economic health.

- Gross domestic product (GDP) is the monetary value of all finished goods and services made within a country during a specific period.
- GDP provides an economic snapshot of a country, used to estimate the size of an economy and growth rate.
- GDP can be calculated in three ways, using expenditures, production, or incomes. It can be adjusted for inflation and population to provide deeper insights.
- Though it has limitations, GDP is a key tool to guide policymakers, investors, and businesses in strategic decision-making.

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Three Important Methods for Measuring National Income

There are three techniques to compute national income:

- Income Method
- Product/ Value Added Method
- Expenditure Method

Income Method

National income is calculated using this method as a flow of factor incomes. Labor, capital, land, and entrepreneurship are the four main components of production. Labour is compensated with wages and salaries, money is compensated with interest, the land is compensated with rent, and entrepreneurship is compensated with profit.

Furthermore, certain self-employed individuals, such as doctors, lawyers, and accountants, use their own labour and capital. Their earnings are classified as mixed-income. NDP at factor costs is the total of all of these factor incomes.
National Income is calculated as a flow of income in this case.
NI can be calculated as follows:

Employee compensation + Operating surplus (w + R + P + I) + Net income + Net factor income from overseas = Net national income.

Where,
Wage stands for wage and salaries
R stands for rental income.
P stands for profit.
I stand for mixed-income.

Product/ Value Added Method

National income is calculated using this method as a flow of goods and services. During a year, we determine the monetary value of all final goods and services generated in an economy. The term "final goods"

refers to goods that are consumed immediately rather than being employed in a subsequent manufacturing process.
Intermediate goods are goods that are used in the manufacturing process. Because the value of intermediate products is already included in the value of final goods, we do not count the value of intermediate goods in national income; otherwise, the value of goods would be double-counted.

To avoid duplicate counting, we can use the value-addition approach, which calculates value-addition (i.e., the value of the end good plus the value of the intermediate good) at each stage of production and then adds them together to get GDP.
The sum-total is the GDP at market prices since the money value is measured at market prices. The methods outlined before can be used to convert GDP at market price.
The flow of goods and services is used to calculate national income.
NI can be calculated as follows:

G.N.P. - COST OF CAPITAL – DEPRECIATION – INDIRECT TAXES = NATIONAL INCOME

Expenditure Method

National income is calculated using this method as a flow of expenditure. The gross domestic product (GDP) is the total of all private consumption expenditures. Government consumption expenditure, gross capital formation (public and private), and net exports are all factors to consider (Export-Import).
As said above, the flow of expenditure is used to calculate national income.
The Expenditure technique can be used to calculate NI as follows:

NationalIncome+NationalProduct+NationalExpenditure=National Income+National Product+National Expenditure=National Expenditure.

9) Explain the various methods of forecasting demand?

Answer:

Demand forecasting is the process of predicting what the demand for certain products will be in the future. It identifies what both current and future customers will want to buy and tells manufacturing facilities what they should actually produce.

Ideally, manufacturing companies want to be able to accurately predict customer demands so that they can produce the right amount of products. Producing too little items leads to stock shortages and can negatively impact customer relationships. On the other hand, having too much inventory is costly and can lead to having excess stock if the items become obsolete.

Methods of Demand Forecasting

1] Survey of Buyer's Choice

When the demand needs to be forecasted in the short run, say a year, then the most feasible method is to ask the customers directly that what are they intending to buy in the forthcoming time period. Thus, under this method, potential customers are directly interviewed. This survey can be done in any of the following ways:

a. **Complete Enumeration Method:** Under this method, nearly all the potential buyers are asked about their future purchase plans.
b. **Sample Survey Method:** Under this method, a sample of potential buyers are chosen scientifically and only those chosen are interviewed.
c. **End-use Method:** It is especially used for forecasting the demand of the inputs. Under this method, the final users i.e. the consuming industries and other sectors are identified. The desirable norms of

consumption of the product are fixed, the targeted output levels are estimated and these norms are applied to forecast the future demand of the inputs.

2] **Collective Opinion Method**

Under this method, the salesperson of a firm predicts the estimated future sales in their region. The individual estimates are aggregated to calculate the total estimated future sales. These estimates are reviewed in the light of factors like future changes in the selling price, product designs, changes in competition, advertisement campaigns, the purchasing power of the consumers, employment opportunities, population, etc.

The principle underlying this method is that as the salesmen are closest to the consumers they are more likely to understand the changes in their needs and demands. They can also easily find out the reasons behind the change in their tastes.

3] **Barometric Method**

This method is based on the past demands of the product and tries to project the past into the future. The economic indicators are used to predict the future trends of the business. Based on future trends, the demand for the product is forecasted. An index of economic indicators is formed. There are three types of economic indicators, viz. leading indicators, lagging indicators, and coincidental indicators.

The leading indicators are those that move up or down ahead of some other series. The lagging indicators are those that follow a change after some time lag. The coincidental indicators are those that move up and down simultaneously with the level of economic activities.

4] **Market Experiment Method**

Another one of the methods of demand forecasting is the market experiment method. Under this method, the demand is forecasted by conducting market studies and experiments on consumer behavior under actual but controlled, market conditions.

Certain determinants of demand that can be varied are changed and the experiments are done keeping other factors constant. However, this method is very expensive and time-consuming.

5] **Expert Opinion Method**

Usually, market experts have explicit knowledge about the factors affecting demand. Their opinion can help in demand forecasting. The Delphi technique, developed by Olaf Helmer is one such method.

Under this method, experts are given a series of carefully designed questionnaires and are asked to forecast the demand. They are also required to give the suitable reasons. The opinions are shared with the experts to arrive at a conclusion. This is a fast and cheap technique.

6] **Statistical Methods**

The statistical method is one of the important methods of demand forecasting. Statistical methods are scientific, reliable and free from biases. The major statistical methods used for demand forecasting are:

a. **Trend Projection Method:** This method is useful where the organization has a sufficient amount of accumulated past data of the sales. This date is arranged chronologically to obtain a time series. Thus, the time series depicts the past trend and on the basis of it, the future market trend can be predicted. It is assumed that the past trend will continue in the future. Thus, on the basis of the predicted future trend, the demand for a product or service is forecasted.

b. **Regression Analysis:** This method establishes a relationship between the dependent variable and the independent variables. In our case, the quantity demanded is the dependent variable and income, the price of goods, the price of related goods, the price of substitute goods, etc. are independent variables. The regression equation is derived assuming the relationship to be linear. Regression Equation: Y = a + bX. Where Y is the forecasted demand for a product or service.

Conclusion: Thus There are several different ways to do demand forecasting. Your forecast may differ based on the forecasting model you use. Best practice is to do multiple demand forecasts. This will give you a more well- rounded picture of your future sales. Using more than one forecasting model can also highlight differences in predictions. Those differences can point to a need for more research or better data inputs.

10) Discuss the different types of collusive oligopoly?

Answer:

Intro: Collusive oligopoly is **a market situation wherein the firms cooperate with each other in determining price or output or both**. A non-collusive oligopoly refers to a market situation where the firms compete with each other rather than cooperating.

Sometimes, firms may try to remove uncertainty related to acting independently and enter into price agreements with each other. This is collusion. Collusion is either formal or informal. It can take the form of cartel or price leadership.

A cartel is an association of independent firms within the same industry which follow the common policies relating to price, output, sale, profit maximization, and the distribution of products. Price leadership is based on informed collusion. Under price leadership, one firm is a large or dominant firm and acts as the price leader who fixes the price for the products while the other firms allow it.

Collusion is an anticompetitive business practice where firms work together to engage in illegal acts of market manipulation that earn them greater profits at the expense of the consumer.

Collusion is most common within industries where there are relatively few firms operating, high fixed costs, high barriers to entry, relatively inelastic demand for goods, and limited government regulations.

- **Example**: The Organization of Petroleum Exporting Countries (OPEC) is a cartel of oil-producing nations that collude to fix the price of oil and restrict production through a quota system.

Types of Collusion

Collusion between firms can be observed in two different forms: explicit collusion and implicit collusion.

Explicit collusion happens when a group of firms establish a formal agreement to engage in collusive commercial practices. However, since collusive practices are generally illegal, firms are likely to avoid creating documentation of any such agreement. A contract detailing the terms of collusion might also be difficult to enforce in court for the same reason. Instead, a formal agreement to collude may be reached verbally and in-person.

Implicit collusion happens when a group of firms manipulate the marketplace through interdependent actions, but without coming to a formal agreement. Price leadership, a practice where one firm sets the price for a good and other firms simply follow suit, is a classic example of implicit collusion in business.

Conclusion: When a group of firms cooperates to maximize their profits in the marketplace instead of competing with each other, this is known as collusion. Collusion gives firms an unfair advantage in the marketplace and collusive practices like price fixing are designed to unfairly benefit firms at the expense of the consumer.

Sec-C-Case study

Case Study:

Multiplex pricing [1*20 = 20] Multiplex business has gained steady momentum in India. Ticket prices in such multiplexes are adjusted in accordance with the movie, time of the day and day of the week. Hit movies on a weekend or a holiday are charged maximum, while during weekdays, when prices are kept lower, the benefit goes to the audience. Besides taking over the metros, these multiplexes have undertaken the risk of broadening their network to non-metros. But the game in the non-metros is slightly different from that in metro. The profit margin is slightly different in non-metros, classified according to the affordability factor, taste and preferences. During weekdays, the prices of the ticket vary from □ 150 - □ 200 in metros and soar up during the weekends making the tickets available at □200 - □250. The morning shows are priced at □60, □80 or □100 attracting the school or college students. The price of tickets in non-metros varies from □80 - □100 during a week. “Customers in these towns would not have the capacity to pay upwards of □100 for a ticket, hence we have entered these towns under separate brand name of PVR Talkies”

Questions:

1. What type of pricing strategy is adopted in the case of Multiplexes? Evaluate on the basis of various pricing categories.

2. Is this price discrimination or flexible pricing? Explain

3. Evaluate the objective of Multiplexes on the basis of their pricing strategy

Solution:

Summary:

Multiplex business has gained steady momentum in India. Ticket prices in such multiplexes are adjusted in accordance with the movie, time of the day and day of the week. Hit movies on a weekend or a holiday are charged maximum, while during weekdays, when prices are kept lower, the benefit goes to the audience. The profit margin is slightly different in metros and non metro cities according to the purchasing power of the audience. In non metros PVR talkies were introduced for customers who cannot afford expensive tickets.

1. **What type of pricing strategy is adopted in the case of Multiplexes? Evaluate on the basis of various pricing categories**.

Answer: Price Discrimination involves charging a different price to different groups of consumers for the same good. Price discrimination can provide benefits to consumers, such as potentially lower prices, rewards for choosing less popular services and helps the firm stay profitable and in business. The advantages of price discrimination will be appreciated more by some groups of consumers.

Some other benefits are:

- Allows an unprofitable business to avoid going bankrupt.
- Some groups benefit from cheaper prices

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- Low-income consumers may be able to benefit from cheaper prices.
- Price discrimination helps a firm to become more profitable. This may enable the firm to invest in increased capacity.

2) **Is this price discrimination or flexible pricing? Explain**

Answer:
Here multiplex is following price discrimination pricing strategy as multiplex is charging different prices at different places and also different prices for different shows in different days of the week.

3**) Evaluate the objective of Multiplexes on the basis of their pricing strategy**

Answer:

Objectives are as follows:

1. To charge different prices from different consumers according to their paying capacity, such as – to charge more price from rich consumers and less price from poor consumers.
2. To charge Different prices from different consumers on the basis of their geographical locations.
3. To charge different prices from different consumers, on the basis of use of the product by these consumers
4. To discriminate in the price with an object of entering into a new market or with an object of expanding the market.
5. To discrimination in the price with an object to discourage possible competition in a particular area.

End

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