

i) Write about Nature and Scope of Economics

Nature of Managerial Economics:

i) Micro Economics: It is micro in character (or) Nature. This is because it studies the problems of an individual business unit. It does not study the problems of the entire economy of the world or nation.

ii) Normative Science: It is a normative science. It is concerned with what management should do under particular circumstances. It determines the goals of the enterprise, then it develops the ways to achieve these goals. Managerial economics is prescriptive rather than descriptive. It prescribes solutions to various business problems.

iii) Pragmatic (Practical): It is pragmatic. It concentrates on making economic theory more application oriented. It tries to solve the managerial problems in their day-to-day functioning.

iv) Uses Macroeconomics: Macro economics is also useful to business economics. It provides an intelligent understanding of the environment in which the business operates managerial economics takes the help of macro economics to understand the external conditions such as business cycle, national income.

v) Uses Theory of Firm: Managerial Economics largely uses the body of economics concepts and principles towards solving the business problems.

vi) Management Oriented: The main aim of managerial economics is to help the management in taking current decisions and preparing plans and policies for future.

Scope of Managerial Economics

i) Theory of Demand: According to spencer and sigleman. A business firm is an economic organization which transforms productivity sources into goods that are to be sold in a market.

Demand Analysis: Demand analysis is necessary for demand forecasting which is an important aspect of predicting future sales is essential before preparing production schedule and employing productive resources.

ii) Theory of Production: Production and cost analysis is important for the smooth functioning of process and project planning. Certain amount of goods has to be produced to earn a certain level of profit. It explains how average and marginal costs change with the change in production.

iii) Theory of Exchange or Price Theory: Theory of exchange is popularly known as Price Theory. It explains how price are determined under different types of market condition.

iv) Theory of Profit:- Every business and individual enterprise aims to maximum profit. Profit is the difference between total revenue and total cost because of following factors profit is always certain

- a) Demand of the product
- b) Prices of the factors of production
- c) Nature and degree of completion in the market.

d) Price behaviour under changing conditions

Hence, profit planning and profit management are necessary for improving profit earning efficiency of the firm.

v) Theory of Capital and Investment

a) Selection of most suitable investment project

b) Most efficient allocation of capital

c) Assessing the efficiency of capital

d) Minimizing the possibility of under capitalization or over capitalization

2) Write in detail about Law of Demand?

- This is first law of purchase

- This law was developed by Alfred Marshall

- There is an inverse relationship b/w price

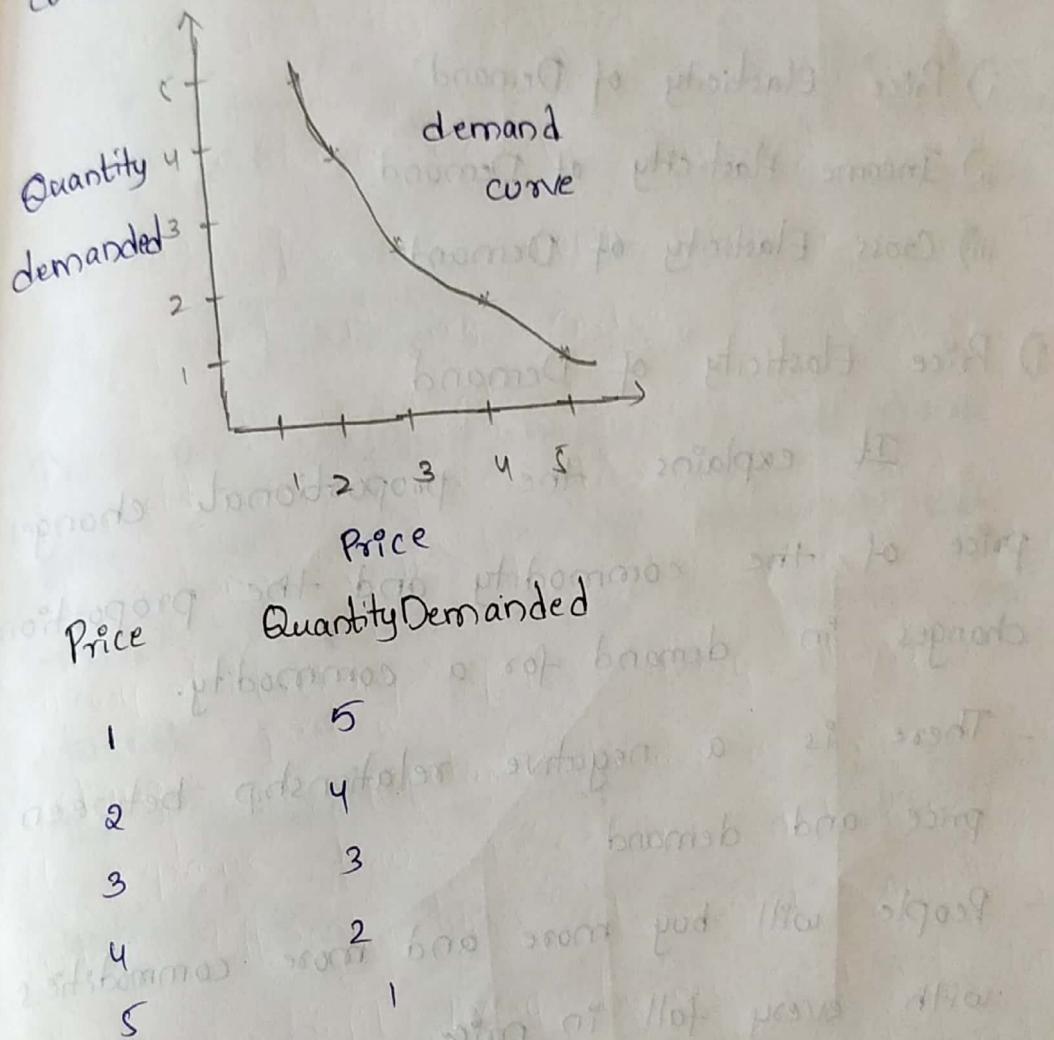
and demand but the relation is negative

- According to Prof. Samuelson "Law of Demand"

states that people will buy more at lower prices and buy less at higher prices, other things remaining constant

- In the words of Alfred Marshall a rise in the price of commodity/service is followed

by a decrease in demand and a fall in the price of commodity service. It is followed by increase in demand, other things remaining constant.



- Always DD curve slopes downwards from left to right as the relationship is inverse and negative.

3) Explain about Elasticity of Demand,

Elasticity is defined as when there is a change in the independent variables, there will be a change in the dependent variables.

- i) Price Elasticity of Demand
 - ii) Income Elasticity of Demand
 - iii) Cross Elasticity of Demand
- i) Price Elasticity of Demand

It explains the proportional changes in price of the commodity and the proportional changes in demand for a commodity.

- There is a negative relationship between price and demand.
- People will buy more and more commodities with every fall in price.

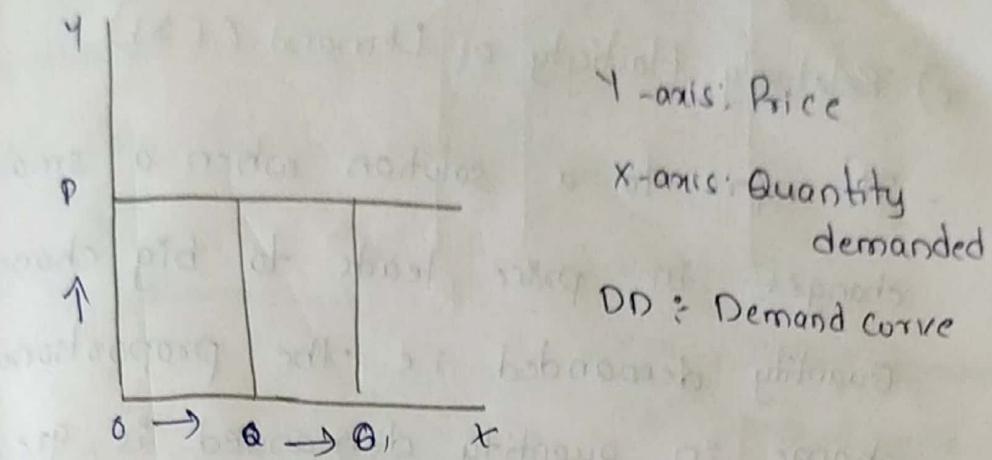
$$EP = \frac{\text{Proportional changes in a Quantity demanded}}{\text{Proportional changes in Price of Commodity}}$$

Types of Price Elasticity of Demand

- a) Perfectly Elasticity of Demand ($\alpha = \infty$)

In perfectly elasticity of demand even if

there is a little change or no change in price level there is an infinite changes in quantity demanded



- In the diagram, there is no change in price level and constant from OP but there is infinite change in demand OQ_1 to OQ_2 .
- The demand for Bikers is 1 day-by-day without any changes in Price.

b) Perfectly Inelasticity of Demand ($E=0$)

In this, the change in price of a commodity fails to influence the demand for that commodity that is increase / decrease in price levels has impact on quantity demanded.

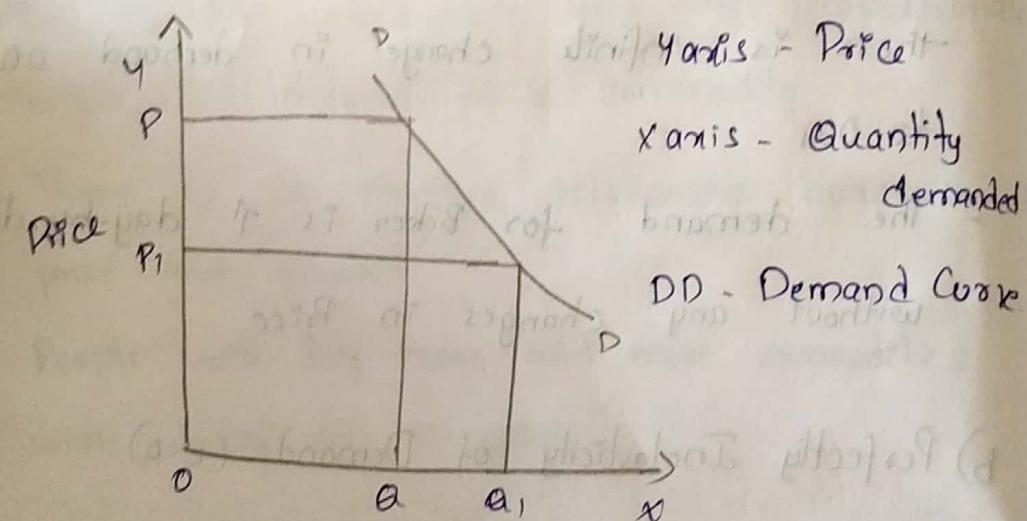
- From below diagram, price increases from OP to OP_1 (or) price decreases from OP to OP_2 but

There is no change in quantity demanded or

Eg: Salt, emergency drug

c) Relatively Elasticity of Demand ($E > 1$)

- It refers to a situation when a small change in price leads to big change in quantity demanded. i.e. the proportionate change in quantity demanded is greater than the proportionate change in price of commodity.

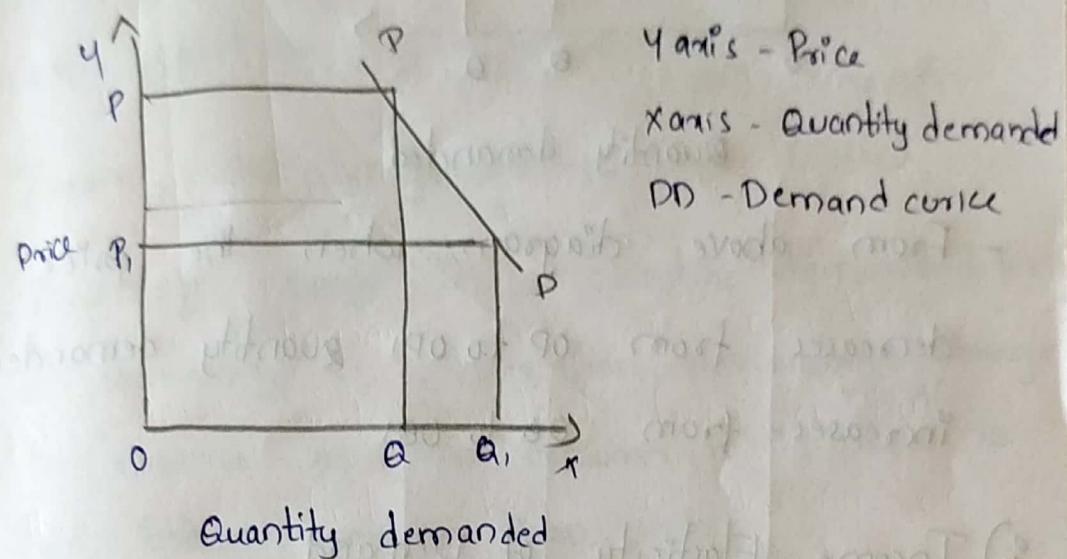


- From above diagram, when the price falls down P_1 to P_2 , the demand increases from Q_1 to Q_2 .
- This is used mainly in case of substitute products

Eg: If the air ticket fare is increased then people prefer train.

d) Relatively Inelasticity of Demand ($E_d < 1$)

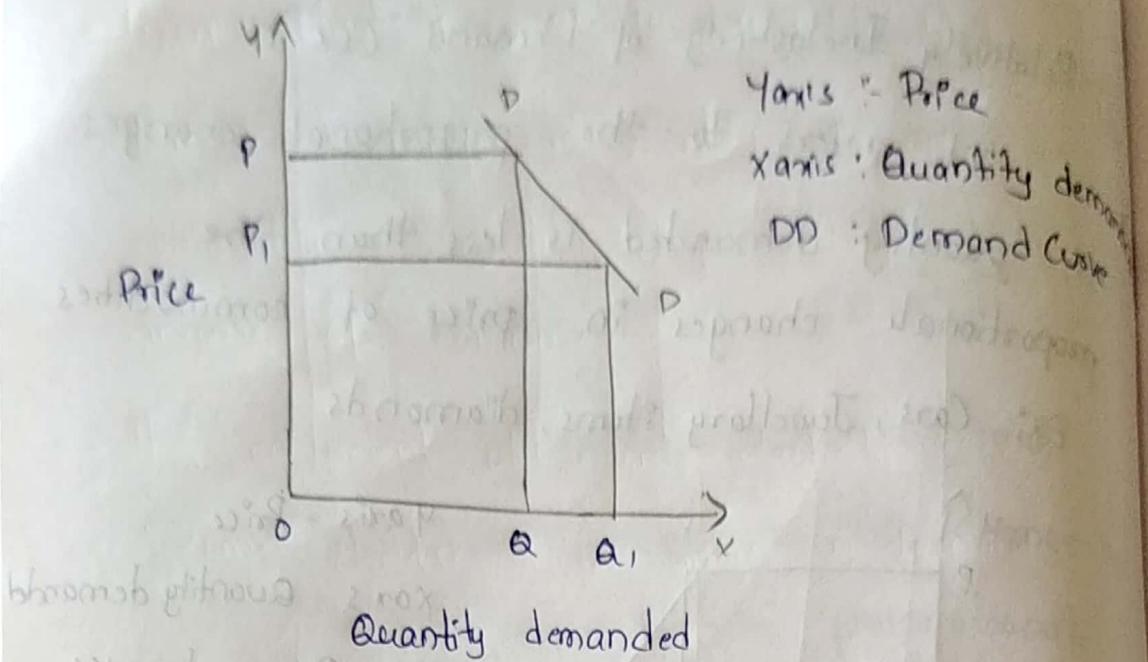
It refers to the proportional changes in quantity demanded is less than the proportional changes in price of commodities
Ex: Cars, Jewellery items, diamonds



- From diagram, when price decreases from OP to $O'P'$, there is small change in demand OQ to $O'Q'$.
- This is used mainly in case of prestigious goods.

e) Unitary Elasticity of Demand ($E_d = 1$)

If the proportional changes in prices of commodity and the quantity demanded are equal then demand curve (DD) is Unitary Elasticity of demand.



- From above diagram, when the price decreases from OP to OPI quantity demanded increases from OQ to OQ_1

ii) Income Elasticity of Demand

- It refers to quantity demanded of a commodity in response to given change in income of consumer.
- Income elasticity is always positive which indicates that the consumer tends to buy more and more with every increase in income.

$$E_I = \frac{\text{Proportionate changes in Quantity demanded}}{\text{Proportionate change in income of the consumer.}}$$

Types of Income Elasticity Demand

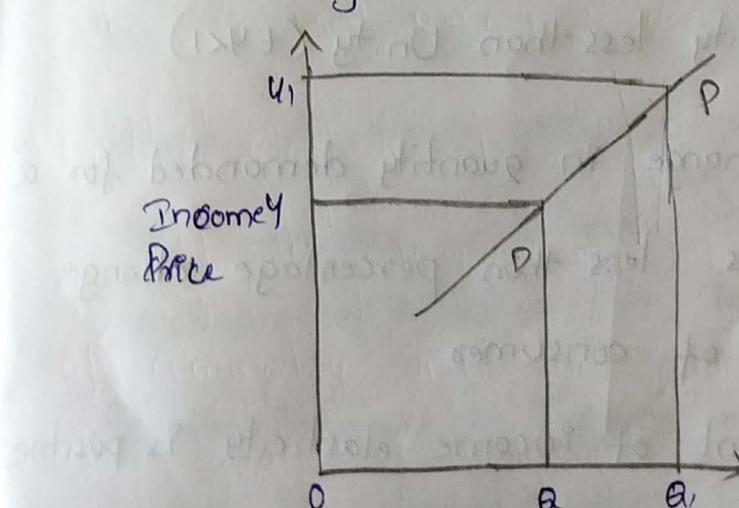
a) Positive Income Elasticity of Demand ($E_Y > 0$)

If the quantity demanded for a commodity ↑ with the rise in income of the consumer and vice versa, it is said to be positive income elasticity of demand.

- Income Elasticity greater than Unity ($E_Y > 1$)

- Percentage change in a quantity demanded for a commodity is greater than percentage change in income of the consumer, it is said to be income greater than unity.

- If the income of consumer increases by 5% as a result his purchases of commodity increase by 10%.

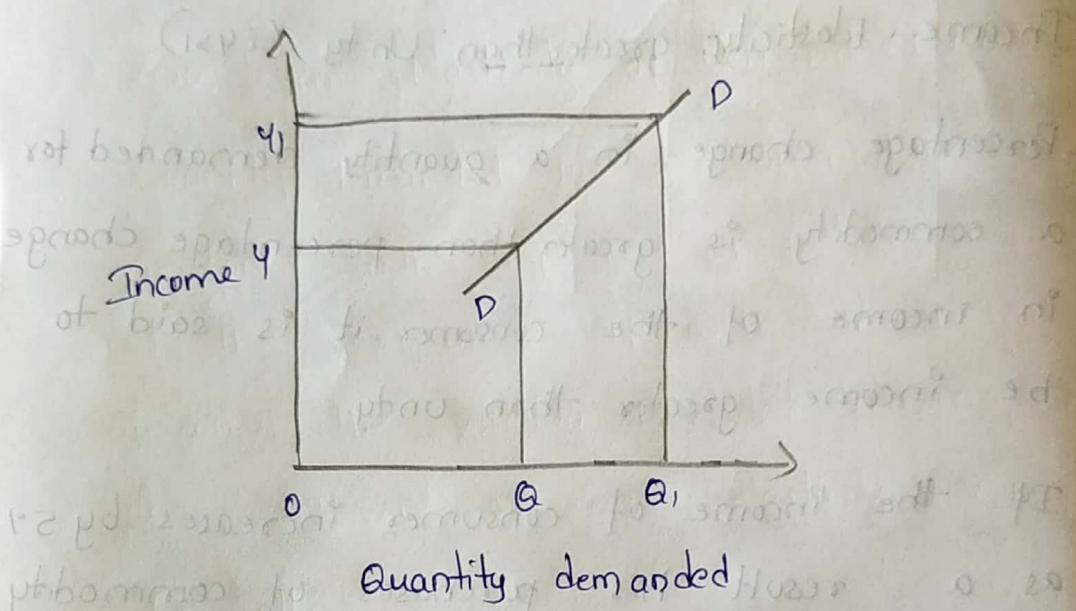


Quantity demanded

- Income Elasticity equal to Unity ($EY=1$)

- Percentage change in quantity demanded for commodity is equal to percentage change in income of consumer.

- The coefficient of income elasticity is 5%. If income leads to 5% raise in demand



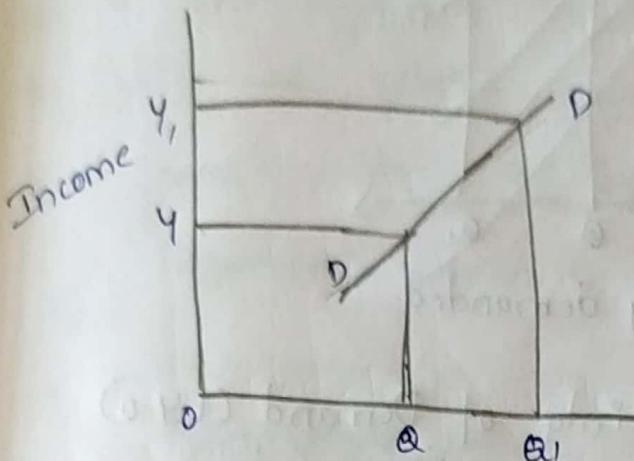
- Income Elasticity less than Unity ($EY<1$)

- Percentage change in quantity demanded for a commodity is less than percentage change in income of consumer.

- The coefficient of income elasticity is positive but low ($EY<1$)

- If the proportionate of income spent on a

commodity \uparrow by 2% when the consumer's income goes up by 5%.

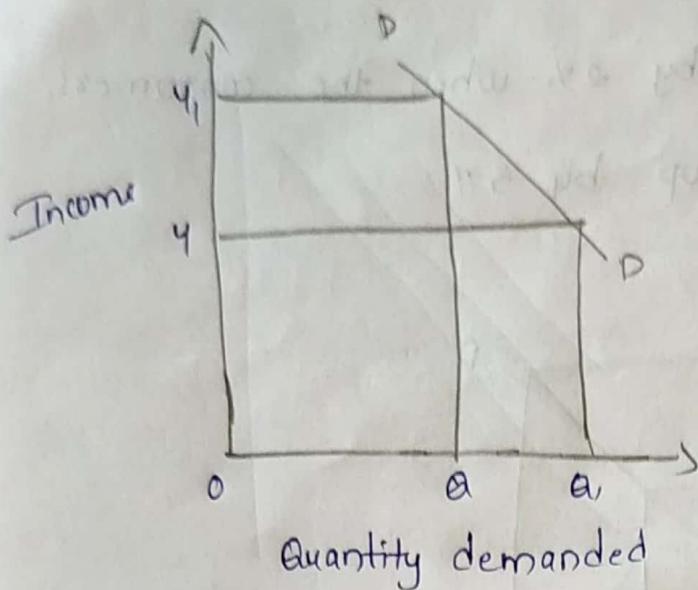


Quantity demanded

b) Negative Income Elasticity of Demand ($EY < 0$)

- Quantity demanded for a commodity decreases with the rise in income of the consumer and vice versa.
- The coefficient of income elasticity of demand in case of inferior goods is -ve. In this case the consumer will reduce his purchases of it, when his income increases.

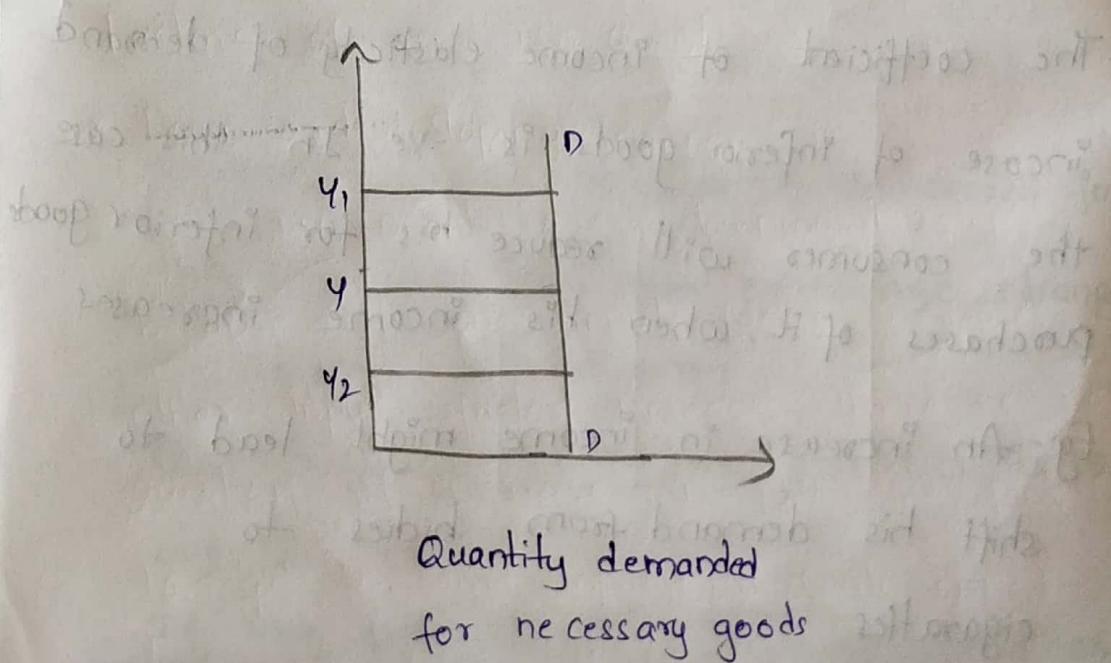
Eg:- An increase in income might lead to shift his demand from bidies to cigarettes



c) Zero Income Elasticity of Demand ($E_Y=0$)

- Quantity demanded for a commodity remains constant with any rise or fall in income of the consumer. If with an increase in income, the quantity demanded remains unchanged, the coefficient of income elasticity $E_Y=0$

Eg:- Salt



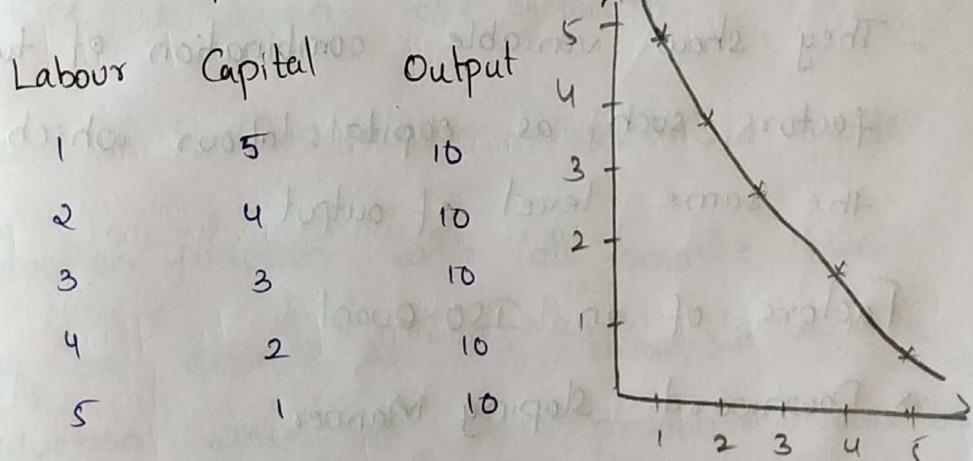
(iii) Gross Elasticity of Demand:

It refers to the quantity demanded for a commodity in response to a change in price of related commodities which may be complementary or substitute products

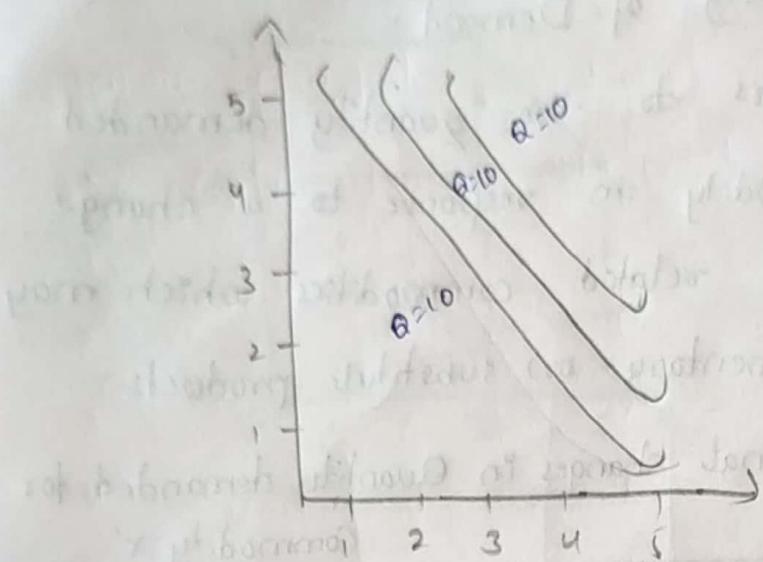
Proportionate changes in Quantity demanded for

$$Ec = \frac{\text{Proportionate changes in quantity demanded for commodity } x}{\text{Proportionate changes in price of commodity } y}$$

4) Write about Production Function with 2 variable inputs.



- The firm can increase the outfit by using two variable inputs that is labour and capital and by keeping all the inputs factory in a constant manner.



- An ISO-Quant is a line joining combination of inputs which generate the same level of outputs ISO-Quants are also called as ISO-Product curves
- They show variable combination of two input factors such as capital, labour which provides the same level of output

Factors of an ISO-Quant

* Downward Sloping Manner

ISO Quants are downward sloping curves because if one input factor increases, the other input factor decreases. There is no question of increase in both the factors to get a same input ISO-Quants slopes downwards from left to right.

* Convex to Origin

It is because the input factors are not substitutes.

* Do not intersect

Two Iso-Quants do not intersect with each other because each of these denotes a particular level of output

* Do not touch axes

Iso-Quant curves neither touches x-axis nor y-axis as both inputs are required to produce a given level of output.

Q) Production Function with all variable inputs?

- Production function with all variable inputs may be defined as the behaviour of the production when all the production functions are increased (or) decreased simultaneously (at a time) in the same ratio.

Production function with all variable inputs table.

- Law of returns explains the behaviour of production when quantity of some factors of

production are kept constant and others remain changed.

S.No	Capital	Labour	Total Product	Marginal Product
1	1	2	3	3
2	2	4	7	4
3	3	6	12	5
4	4	8	18	6
5	5	10	24	6
6	6	12	30	6
7	7	14	36	6
8	8	16	41	5
9	9	18	45	4
10	10	20	48	3

- The above table explains the increase in scale of factors result in increase in output, increase in scale of factors results in constant returns and increase in scale of factors results in decrease in returns.

Varying all the inputs results in 3 situations

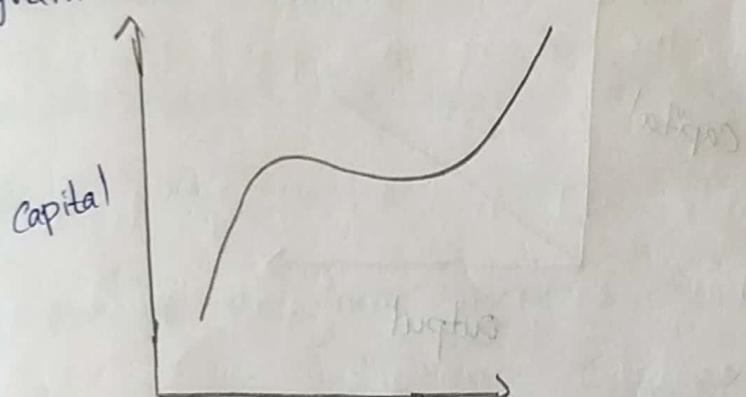
i) Increasing returns to scale

ii) Constant returns to scale

iii) Decreasing returns to scale

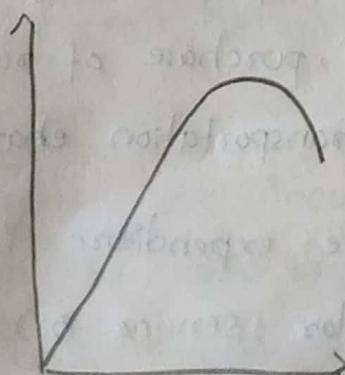
⇒ Increasing returns to scale

If proportional increase in output is greater than proportional increase in input then we have increasing returns to scale, this can be explained with the help of following diagram



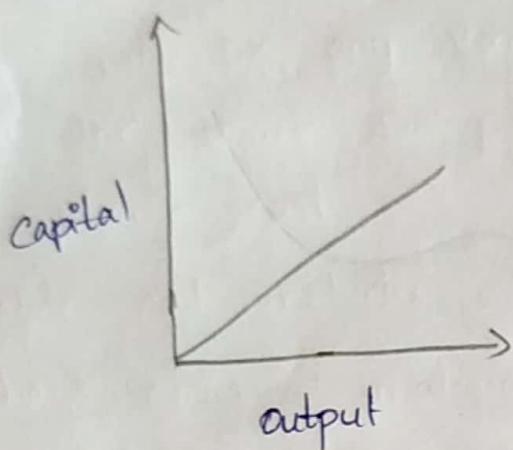
⇒ Decreasing returns to scale

If the proportionate decrease in output is larger than proportionate decrease in input we have decreasing returns to scale, explained with the help of following diagram



iii) Constant return to scale

If the proportionate increase in output is equal to proportionate increase in input, we have constant returns to scale, explained with help of following diagram



6) Write in detail about costs and types of costs?

The expenses which are incurred by the product in the production is called Cost.

- They include purchase of land, construction of building, installation of machinery and equipment, wages to workers, purchase of raw-materials, packing charges, Transportation charges etc.
- It refers to the expenditure incurred to produce a particular service (or) product.

- All cost involve a sacrifice of some kind or other to acquire some benefit.

Eg:- If I want to purchase a pen I have to sacrifice money

- Total revenue i.e. income is realized on the scale of manufactured products

- financial records can't provide all the information regarding the expenses incurred in the past.

- They provide the info regarding the expenses incurred in the past. This managerial economics must develop a sense of knowledge regarding cost analysis.

- Total cost is divided into types

i) Fixed Costs

The costs which remain fixed or in a constant manner E2 which does not change in production are called fixed cost

- Fixed costs are incurred even the production is zero or null

- Fixed costs include purchase of land, construction of building, installation of

missionary and equipment

(i) Variable Cost:

Variable costs changes according to the changes in production

- If the production is temporarily suspended there will ^{not} be any variable cost. In other words, the more the production, the more the variable cost
- Variable cost includes wages to workers, purchase of new materials, packing charges, transportation charges.

Semi Fixed Semi Variable Cost

- It refers to such costs that are fixed to some extent beyond which they are variable

Ex:- Telephone charges (or) electricity charges

- If we have connection, we have to pay the minimum charges

fixed cost, the more you use the facilities the more you get bill which are variable cost.

iii) Long run (or) Short run Costs

Long run costs:- The costs which are increased for a longer period of time are called long run costs.

- It includes establishing a new plant (factory) purchase of machinery & equipment, introducing a new product into market, purchase of plant, construction of building etc.
- These costs helps both in the initial stage of the new company as well as expansion of existing company.

Short run Costs:- The cost which are increased that a shorter period of less than 1 year are called short run costs.

- They include purchase of raw materials, wages to workers, packing charges etc.

iv) Explicit Cost (or) Implicit cost

Explicit cost:- The payments which are made to the outside of the company are called Explicit cost.

- These costs are recorded in the books of accounts.

- Explicit cost includes purchase of raw material from suppliers, wages paid to workers, adversity cost, transportation cost, insurance premium, license fee etc.

vi) Implicit Cost:- The costs which are not recorded in the books of accounts & which do not take the form of cash are called implicit costs

- Implicit costs include owner's salary, rent on land & buildings which are used in the production, owner's own vehicle which are used in the production, interest on our capitals invested in the business.

v) Opportunity Cost

It refers to the cost of the next level alternative forgone.

- When one alternative is selected it means that is opportunity of gaining the benefits from the other alternatives is forgone.

Eg:- The Engineering we have various branches (CSE, ECE, EEE) If we select one branch, we had forgone the opportunity of studying the other branches.

vi) Actual Cost

The actual expenditure incurred by the producer in the production is called Actual cost.

Eg: Rent on buildings, salaries of employees, raw material cost etc.

vii) Out of Packet Cost:

Out of packet costs are those costs that involve immediate outflow of cash. These are spent in the day to day working life of the business. Such as pretty expensives like tea (or) coffee to guests, snacks for workers.

viii) Marginal Cost:

It refers to the additional cost incurred on producing an additional unit of output. It is useful to making decisions.

ix) Book Cost

These are costs which are incurred in defraction which don't require current cash expenditure.

x) Sunk Cost

Sunk costs are those costs for which expenditure is made in the past that can not be changed & over which management has no control. They do not affect the present production.

Eg:- If an asset is lost the funds are blocked forever. They can neither be changed nor controlled.

xi) Incremental Cost

Incremental costs are the additional costs that are incurred due to the change in level (or) module of activity.

Eg:- Purchase of new technology, new packing, new advertisement etc.

7) Write about Perfect Competition

Among different markets based on competition are important. These markets are crucially in deciding output, price of good, competition. Profit to the producer. Therefore a few more details about these markets are

given in this section - first we will discuss the perfect competition.

Perfect competition is a market with a large no of sellers and buyers. The conditions under it promote competition among producers. There will be a single price through out the market. Perfect competition market should have the following features:

i) Large no of sellers and buyers:

There will be a large no of sellers and buyers for a good in this market. It means the output of a buyer (or) seller is a small part of the total output. A single producer (or) seller cannot change the price. None of them is large enough to influence the price. for example a wheat farmer alone can not change the price of wheat. Farmer alone can not change the price of wheat by selling less (or) more. Therefore a seller takes the price decided by the market, the producer is price taker.

i) Homogeneous Commodities

Products in this market are similar in every respect. A consumer gets the same good whenever he purchases it. As a result, there will be one price all over the market. For eg: case of metals like gold, silver standards are prescribed (maintained). Thus products will be the same in the market and they have the same price throughout the market.

ii) Free-entry-exit

Any firm can enter into the production as per its desire. Similarly it can leave the production at any time. This helps new firms to enter into business when conditions are favourable. It keeps competition at a higher levels as long as a firm earns super normal or normal profits. It usually stays in competition but when a firm ends up with losses it would leave the market.

iv) Mobility of Factors of Production

Factors of production will move from one production to another easily. This is also useful for free entry and exit of firms factors (lands, labour, capital etc.) move to the production activities where they get higher incomes.

v) Absence of Transport costs

Transport costs do not alter the prices of commodities if sellers are closer to the market transport costs will be zero, when all of them come from the same place transport cost will be the same. Therefore prices charged by different sellers do not change due to transport cost.