

Navgujarat Commerce College

Affiliated to Gujarat University

Reading Material:

Fundamentals of Business Economics – 1

(For internal use and reading purpose only)

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NAVGUJARAT

COMMERCE

COLLEGE

**F.Y.B.COM
ECONOMICS
SEMESTER - I
PAPER NO : 103**

FUNDAMENTALS OF BUSINESS ECONOMICS – I

Objectives: The main objective of this paper is to introduce the students of commerce to the basic concepts and tools of microeconomics.

Outcome: The students after studying this paper, will get a clear understanding of various basic concepts used in economics. He will also get an understanding of the demand and supply and factors affecting them and how the price is determined in different types of markets.

Unit :1 Basic Concepts and Definitions

Marshall, Robbins and Samuelson's definitions of Economics. Positive and Normative Economics. Micro economics and Macro Economics. Utility, Goods and Services. Money and Wealth. Value and Price. Wealth and Welfare. Consumer surplus(Marshall's concept). Meaning of Demand and Supply. Supply and Stock.

Unit : 2 Demand Analysis and Consumer Behavior

Demand function-Law of Demand-Determinants of Demand. Elasticity of Demand and its types-price, income and cross elasticity. Types of Demand- Individual Demand and Market Demand, Industry Demand and Firm Demand, Demand for Consumer Goods and Demand for Producers Goods. Demand for Durable and Demand for Perishable Goods.

Unit : 3 Production, Cost and Revenue Analysis

Production and Production Function-Short run and Long run Production function(basic ideas only). Transformation Curve (Production Possibility Curve). Iso-Quants and Iso-Cost curves and equilibrium of a firm. Cost analysis-Various concepts of Cost-Total Fixed Cost, Total Variable Cost, Total Cost, Average Fixed Cost, Average Variable Cost, Average Cost and Marginal Cost-Relationship between Average Cost and Marginal Cost- Opportunity Cost. Basic concepts of Revenues-Total Revenue, Marginal Revenue and Average Revenue-Relationship between Average Revenue and Marginal Revenue.

Unit:4 Markets, Product Pricing & Factor Pricing

Concept of Perfect Competition, Monopoly and Monopolistic Competition(Meaning and characteristics). Control of Monopoly. Price Discrimination and Dumping. Selling cost and its Impacts. Concepts of Duopoly and Oligopoly-Collusive Oligopoly- Kinky Demand Curve (Price Leadership Model with reference to Oligopoly).

Suggested Readings:

- H.L.Ahuja, "Modern Micro Economics", S. Chand Publication
- K.K. Dewett, "Micro economics", S. Chand Publication
- M. C. Vaish, "Micro economics",
- Paul Samuelson, "Economics"
- M. L. Sheth, "Micro Economics"
- Mishra and Puri, "Principles of Micro Economics", Himalaya Publication House, 2009
- D. M. Mithani, "Modern Micro Economics", Himalaya Publication House, 2006
- D. M. Mithani, "Micro Economics", Himalaya Publication House, 2009
- Jhon Canedy, "Micro Economics", Himalaya Publication House, 2010
- Jhingan, "Micro Economics", Vrinda Publishing
- Mari Muthu and D. Bose, "An Introduction to Micro Economics", Himalaya Publication House, 2011
- K. K. Dewette, "An Introduction to Economics", S. Chand Publication
- K.K. Dewette, "An Introduction to Economics" S. Chand Publication
- Robert S. Pindyck, Daniel L. Rubinfeld, "Microeconomics (6th Edition)" Prentice-Hall Series in Economics

Unit :- 1 Basic Concepts and Definitions

Q-1 Explain the definition of economics given by Prof. Marshall. (6 Marks – December 2012)

Ans:

Introduction:

Though (છતાં) the definition given by Adam Smith prove (સાબિત થવું) to be a guiding star in development of the economics the definition was not sufficient (પૂરતું) to define subject matter (વિષય વસ્તુ) of economics. Wealth is there but more importance (મહત્વ) was given to man. Emphasis (ભાર) was shifted (ફેરવવું, બદલવું) from wealth to man after Alfred Marshall's views (મત) about economics.

Definition (વ્યાખ્યા):

According to (ના મત મુજબ) Alfred Marshall, "Economics is a study of man in the ordinary (સામાન્ય) business of life. It inquires (તપાસ કરવી, શોધવું) how he gets his income and how he uses it. Thus (તેથી), it is on one side the study of wealth and on the other and more important side a part of the study of man."

Important points of Marshall's Definition:

- 1. Man is at the centre:** Marshall gave primary (મુખ્ય) importance (મહત્વ) to man and wealth was given secondary importance. He says economics is concerned (ફિકર, ચિંતા કે કાળજી રાખવી) mainly with how wealth is used by man. It is the study of men's ordinary business of life which means his wealth getting and wealth using activities.
- 2. Study of economic (આર્થિક) aspect (પાસું, બાજુ):** An individual has several (બહુ) aspects (પાસું, બાજુ) of his life viz. (namely, અર્થાત, એટલેકે) social (સામાજિક), religious (ધાર્મિક), political and economic. Economics studies only economic activities related (સંબંધિત) with earning and spending (ખર્ચ કરવી) income and leaves (છોડી દેવું) other activities.
- 3. Deals with (ની તરફ ધ્યાન દેવું) social actions:** Based on Marshall's views since economics is a social science it studies economic behavior (વર્તન) of people living in society. But actions of isolated (એકલું, અલગ રહેતું) individuals (માણસો, લોકો) are outside its scope (પહોંચ, સીમા).
- 4. Material (સ્થૂળ પદાર્થ, સામગ્રી) Welfare (કલ્યાણ, ભલું):** Only those activities which are related with (related with – ના સાથે સંબંધિત હોવું) well-being (કલ્યાણ, ભલું) of individual form part of study in economics. In other words, economic studies only material welfare. Hence (તેથી, આ કારણે), his definition is known as 'welfare definition'.

Criticism (નિંદા, ટિકા):

Prof. Lionel Robbins of the London School of Economics criticized the definition given by Prof. Marshall on the following basis:

- 1. Human science:** Marshall considered (વિચારવું, ધ્યાનમાં લેવું) economics as a social science rather than as human science. A social science studies individual as a member of society, so activities of isolated person are not counted (ગણતીમાં લેવું). A human science, on the other hand, will include (સમાવેશ કરવી) every human being of the society whether (જો અથવા જો નહિ...તો) living in society or away from society.
- 2. Only material goods:** Marshall emphasized (ભાર મુકવી) on material welfare which means only physical goods, he excluded (બાકાત રાખવું) services. Prof. Robbins criticized Marshall saying that services of doctors, lawyers, teachers etc. are also economic activities because they are scarce (અપૂરતું) and they satisfy human wants.
- 3. Activities not conducive (અનુકૂળ) to human welfare:** Alfred Marshall included only those goods which give rise to human welfare. Robbins criticized him by saying that activities like production and sale of alcohol and tobacco products does not give rise to human welfare but are part of economic study which was ignored (ઉપેક્ષા કરવી) by Marshall.

4. **Difficult (મુશ્કેલ) to measure welfare:** Robbins said that it is very difficult to measure welfare because two persons purchasing the same article (વસ્તુ) may not necessarily (અનિવાર્ય પાણી) derive (મેળવવું) the same level of utility (તુષ્ટિગુણ, ઉપયોગીતા) and satisfaction. A poor person generally derives more satisfaction from the same article than a rich person. Thus, Robbins rejected (નકારવું) the idea of considering money as a satisfactory measure of welfare.
5. **Economics has nothing to do with welfare:** Robbins was of the opinion (મત) that economics has nothing to do with material welfare. He said that economics is only concerned (ચીંતા કરવી) with means (સંપત્તિ અથવા આવક), the study of ends (હેતુ) is not part of study of economics. Robbins suggested that economics is purely a positive science and its function is to explain (સમજાવવું) and explore (શોધવું), not to recommend (મલામણ કરવી) and condemn (નિંદા કરવી).
6. **Classificatory (વર્ગીકરણને લગતું) rather (બિલકુલ, વિપરીત) than analytical (વિશ્લેષણાત્મક, પૃથકકરણ અંગેનું):** The definition classifies human activities in economic and non-economic activities. According to (ના મત પ્રમાણે) Robbins this classification is unscientific and illogical (તક સંગત નહિ એવું). The definition does not analyse and suggest how welfare can be promoted (પ્રોત્સાહન આપવું).

Conclusion (ઉપસંહાર, સારાંશ): Despite (તેમ છતાં) above criticism against (ની વીરુધ્ધ) Marshall's definition, we must not forget that Marshall has broadened (વધારવું) the scope (કાર્યક્ષેત્રની સીમા) of economics by establishing (પાથો નાંખવો, પુરવાર કરવું) a link among wealth, man and his welfare. Marshall's definition formed the basis for new definitions of economics.

Q-2 Critically discuss the definition of economics given by Prof. Robbins. (Dec. 2013, 6 marks)

OR Write a detailed note on scarcity definition of economics.

Ans:

Introduction:

Prof. Lionel Robbins was of the opinion (મત) that economics deals with (deals with – ની તરફ ધ્યાન દેવું) both material goods and non-material activities, whereas the definition of Marshall pointed out material aspects (પાસું, બાજુ) only. Robbins offered (રજૂ કરવું, પ્રસ્તાવ મુકવો) a definition which, he thought, was free from defects (ખામીઓ) he has pointed out in Marshall's definition.

Definition:

In his book 'An Essay on the Nature and Significance (મહત્વ) of Economic Science' published in 1932, he defined economics as, "a science which studies human behavior as a relationship between ends (જરૂરીયાતો) and scarce (અપૂરતા) means (સાધનો) which have alternative (વૈકલ્પિક) uses."

Implications:

Robbins' definition highlighted the following points:

1. **Unlimited wants:** Here ends means human wants. Humans have unlimited wants. They cannot satisfy them all at the same time. Following are the reasons why our wants are unlimited:
 - a. Many wants originate from one want. E.g. if we purchase a car, we also want fuel, regular service, maintenance, oil change etc.
 - b. Wants increase by foolish imitation. E.g. neighbor (પાડોશી) has purchased new car, we also need to have a new car.
 - c. Repeated wants. Some goods are needed on regular basis e.g. food, clothing, fuel etc.
 - d. New technology. With new technology new and new products are produced which are demanded more and more by people. E.g. Android mobile phones
 - e. Increase in population.

2. **Wants with different importance:** As all wants cannot be satisfied at same time a man chooses between more urgent and less urgent wants. Based on urgency there can be three kinds of goods:
 - **Necessities:-** Most urgent wants and must be satisfied as early as possible. E.g. water and food.
 - **Comforts:-** Wants which can be postponed (મૂલતવી કે મોકૂફ રાખવું) for some period e.g. LED TV, Air cooler etc.
 - **Luxuries:-** Wants which can be postponed forever permanently. E.g. luxurious bungalows, costly cars, expensive paintings, club memberships etc.
3. **Limited resources (સંપત્તિ, સાધનસામગ્રી):** Although (જોકે, તેમ હોવા છતાં) our wants are unlimited, the means (સાધનો) to satisfy the wants are limited. There are two kinds of resources – human and natural. Both the resources are scarce so their economical (કરકસરચુક્ત) use is required. Scarcity here means scarcity in relation to the demand of a commodity. Poison, for example, may be found in small quantity (જથ્થો) but if nobody wants it, it cannot be called scarce. Coal, on the other hand, may be found in large quantity, but the demand is still greater. Hence, coal is scarce in relation to demand for it. **Limited resources give rise to problem of choice.**
4. **Alternative uses of means:** Means have alternative uses that is why, choice of means to be used is to be made e.g. Land is a natural wealth having alternative uses i.e. cultivation, construction of building, establishing factory etc. But once the land is used for some purpose (હેતુ) for example agriculture, it cannot be used for anything else. This alternative uses of means makes problem of choice more complex and gives rise to problem of **Allocation (ફાળવણી, વહેંચણી, વીતરણ) of Resources.**

From the above discussion we can say that unless all the three conditions mentioned above are present, economic problem cannot arise.

Criticism:

Even though the definition of Robbins is superior (ચોક્કસ) to earlier economists it was severely (સખત રીતે) criticized on the following grounds.

1. **Lacking (ભિણપ કે અભાવ) Ethical (નૈતિક, નીતિરીતિને લગતું) Significance:** The definition ignores (ઉપેક્ષા કરવી) normative (સ્વીકૃત ધોરણ) or ethical (નૈતિક) aspect. It has been pointed out that Robbins' definition is colorless, impersonal (વ્યક્તિગત સંબંધ વીનાનું) and neutral (તટસ્થ) regards ends. The function of an economist is not only to explain and explore (સંશોધન કરવું) but also to advocate (સમર્થન કરવું) and condemn (દોષિત ઠરાવવું, વખોડવું) for social betterment.
2. **Put Limit to Scope of Economics:** Robbins has reduced (ઘટાડવું) economics merely (ફક્ત) to valuation (મૂલ્યાંકન) theory. But actually economics is more than just study of allocation of resources. It considers the problem arising out of scarcity but it doesn't talk about problems arising out of plenty (પૂષ્કળ). It takes into consideration (ધ્યાનમાં લેવું) demand side but ignores supply side.
3. **Ignores Macro-economics:** Robbins' definition doesn't cover macro-economic issues. It does not tell as how the level of income and employment in a country is determined. This is regarded as very serious omission (ગરહત, ક્ષતિ), because today macroeconomics forms very important part of the economic study.
4. **Doesn't include Growth and Development:** Robbins' definition does not include theory of growth and development which explains how an economy grows and the factors which bring about increase in national income and productive capacity of the economy. Instead Robbins takes resources as given and discusses only their allocation.

5.Unemployment: Robbins’ definition does not take into account the problem of unemployment. The problem of unemployment is of excess of manpower rather than scarcity of the same.

Conclusion: The definition given by Prof. Robbins was far superior to Smith and Marshall’s definitions. Robbins has rightly said that economics is science of choice. But he was not able to define economics in its totality. Though, criticized severely definition given by Robbins formed the basis for evolution (ક્રમિક વિકાસ) of economics.

Q-3 Provide comparison (સરખામણી) between Marshall and Robbins’ definition of economics.

Ans:

Comparison Between Marshall’s and Robbin’s Definitions of Economics

According to Marshall, economics is a science of material welfare. His definition has focus on the role of mankind as well as wealth in economic life. But Robbins’s definition considered economics as a study of scarcity and choice. A comparative study of both definitions is made on the basis of their similarities and differences.

Similarities:

Similarities between Robbins’s & Marshall’s definition can be shown in the following points.

1. **Primary importance to man:** Both Marshall and Robbins have given primary importance to man. According to Marshall, economics studies man in relation to wealth. Robbins definition studies human behavior as a relationship between end and scare means which have alternative uses. The ultimate aim of the two definitions is the same about the study of human beings.
2. **Wealth and scare means:** Marshall has used the word wealth in the process of defining economics. Robbins has used the phrase scare means instead of wealth. Though they are not same, but similar because in economics, wealth is goods which are scare. So, Marshall has directly explained about wealth and Robbins has indirectly explained about wealth.
3. **Welfare and satisfaction.:** Marshall assume that main aims to utilize wealth to achieve maximum material welfare, where as Robbins maximum material welfare, whereas Robbins assume that main aims to utilize scare resources to achieve maximum satisfaction. In reality, there is no wider difference between welfare and satisfaction. Thus the definitions of both are similar.

Dissimilarities

Some dissimilarities between Robbins and Marshall’s definition are as follows:

Marshall’s definition	Robbins’s definition
1. Marshall’s definition is simple and fair.	1. This definition is complex.
2. This definition is classificatory as material & non-material, economic & non-economic activities.	2. This definition is analytical based on basic economical problems.
3. The objective of this definition is material welfare.	3. This definition is neutral about the objective.
4. This definition considers economics as asocial science.	4. This definition considers economics as a human science.
5. Marshall’s definition is based on normative science.	5. Robbins’s definition is based on the concept of positive science.
6. Economics is related with ordinary man.	6. Economics is related with both ordinary and extra ordinary man.

Q-4 Clarify the definition of economics given by Prof. Samuelson. (Dec. 2012, 6 Marks) OR Discuss the growth oriented definition of economics given by Prof. Samuelson. (Dec. 2013, 6 marks)

Ans:

Introduction:

Wealth, welfare and scarcity definitions of economics were not sufficient to define complete sense of economics. After Robbins, Samuelson defined economics in more meaningful way. His definition is termed as growth oriented definition.

Definition:

Samuelson defined Economics as, “Economics is the study of how people and society choose, with or without the use of money, to employ scarce productive resources which could have alternative uses, to produce various commodities over time and distribute them for consumption now and in the future among various people and groups of society.”

Main features of Samuelson’s Definition:

- (i) **Deals with scarce resources:** The definition emphasize (ભાર મુકવો) the point that Economics is the study of economic resources. These economic resources refer to natural, human and physical resources, which satisfy human wants but are scarce and have alternative uses. Thus, Samuelson agrees with Robbins that economics deals with scarce resources and unlimited ends.
- (ii) **Efficient allocation of resources:** In the definition Samuelson focuses on the ways through (ના માધ્યમ દ્વારા. આરપાર) which people and society chooses to distribute their resources so that they can be efficiently used. Improvement in resource allocation helps in spreading (ફેલાવવું, વિસ્તારવું) development in an economy.
- (iii) **Growth orientation:** Samuelson suggested that economic resources are not static (સ્થિર, સ્થાયી) and they can be made to grow over time through exploration (તપાસવું), exploitation (નો ઉપયોગ કરવો) and development (વિકાસ). This results in an increase in the growth rate of economy, more employment and higher standards of living.
- (iv) **Futuristic (ભવિષ્યને લગતું, આધુનિક):** The definition also considers (ધ્યાનમાં લેવું) time by focusing distribution of scarce resources in present as well as future. According to Samuelson the growth of resources is necessary since not only the present wants of human beings should be considered but also the increasing wants of increasing number of people should be taken into consideration (વિચાર કરવો).
- (v) **Scope of economic activities:** Like Robbins Samuelson includes all activities in economics whether (કે ... અથવા, અગર) they can be measured (માપવું) in terms of money or not or whether they lead to material welfare or not.

Conclusion:

The definition provided by Samuelson resembles (મળતું આવવું) partly (અંશતઃ) with the definition provided by Robbins as it focuses on problem of choice and allocation of resources. Moreover (વધુમાં, તદઉપરાંત) he considers growth and future which makes his definition better than all the other definitions of economics so far.

Q-5 Write a note about positive and normative Economics (4 Marks)

Ans:

Positive Economics:

- According to Prof. Robbins economics is a positive science which studies things as they are and explains their cause (કારણ) and effect (પરિણામ) relationship (સંબંધ).
- Positive economics explains ‘why’ of things. It tries to analyse, explain and explore (શોધવું) economic facts. It does not pass judgment on any matter. So positive economics is objective and fact based.

- Statements (નિવેદન, દેવાણ) in positive economics can be verified (અકાસણી કરી શકાય તેવું) and tested.
- For positive economic analysis the question asked is ‘what is’(are). E.g. What are the reasons for increase in international prices of crude oil, what is the rate of inflation (કુગાવો), what are the reasons that leads to increase in inflation etc.

Normative Economics:

- According to modern economists, economics cannot and should not remain (રહેવું) neutral (નરસ્થ) between ends.
- The study of economics aims at not only to know the truth for its own sake, but also to provide a technique for the solution of various economic problems facing the society.
- Normative economic statements are judgment based and they look into what is right and what is wrong.
- It tries to suggest solution for economic problems.
- The question asked in normative economics is ‘what should be’ or ‘what ought (યોગ્યતા, કરવું જોઈએ) to be’. E.g. what should be done to control the prices of crude oil, how inflation can be controlled etc.

Conclusion:

As positive science economics inquires into the reasons behind an event. On the other hand as normative science it suggests solutions for the betterment of the outcomes (પરિણામ). Thus, both positive and normative thinking are necessary for economic analysis.

Q-6 Clarify the concept of Microeconomics and Macroeconomics. (Dec.–2012, 2013. 4 Marks)

Ans:

Introduction:

Microeconomics and Macroeconomics are the two different branches of economics. Micro means ‘small’ and Macro means ‘big’.

Microeconomics:

Microeconomics studies economic behavior (choice and decision-making behavior) of individual economic entities and individual economic variable like single household, single firm, single industry, individual commodities etc.

Definition: According to Prof. K. E. Boulding, "Micro Economics is the study of particular (ચોક્કસ) firm, particular household (ઘર, બધા સભ્યો), individual prices, wages, incomes, individual industries and particular commodities."

Macroeconomics:

Macroeconomics analyzes all aggregate indicators and the microeconomic factors that influence the economy. Government and corporations use macroeconomic models to help in formulating (રજૂ કરવું, ઘડવું) of economic policies and strategies (યોજના).

Definition: Macroeconomics is the branch (શાખા) of economics that studies the behavior and performance of an economy as a whole. It focuses on the aggregate changes in the economy such as unemployment, growth rate, gross domestic product and inflation.

Difference between Microeconomics and Macroeconomics:

Point of Difference	Microeconomics	Macroeconomics
<i>Definition</i>	Microeconomics is the branch of economy which is concerned with the behavior of individual entities such as market, firms and households.	Macroeconomics is a branch of economics dealing with the performance, structure, behavior, and decision-making of an economy as a whole.

Point of Difference	Microeconomics	Macroeconomics
Foundation	Microeconomics consists of individual entities.	The foundation of macroeconomics is microeconomics.
Known as	It is known as price theory.	Macroeconomics is known as income theory.
Basic Concepts	Pricing, supply and demand, opportunity cost.	Output and income, unemployment, inflation and deflation.
Applications	Used to determine methods of improvement for individual and business entities.	Used to determine an economy's overall health, standard of living, and needs for improvement.

Conclusion: Microeconomics and Macroeconomics are totally different from each other but they are not competitive to each other. They are both complements of each other. In the absence of one study of the other is difficult. Both microeconomics and macroeconomics are interdependent.

Q-7 Explain the concept of Utility (Dec. 2013, 4 marks). Explain different types of Utility (Dec. 2012, 4 marks)

Ans:

Introduction:

Goods satisfy human wants. This want satisfying quality in a good is called utility. If a man is ready to pay for something than it means that it has some utility. Air, water, sunshine (free goods) etc. and food, clothes, land, house, furniture etc. (economic good) satisfy people’s wants and such they possess utility.

Definition:

Want satisfying capacity/quality of any good is called utility.

Important points:

Following are the points to be remembered while talking about utility:

- 1. Utility and usefulness are different:** A commodity may satisfy a human want, but may not be useful. On the contrary (હિલકું, વિપરીત), it may be injurious, e.g. opium (અફીણ) and poison. But, because they satisfy a human want and some people are ready to pay for them, we can say that they possess utility.
- 2. Consumption may not give pleasure:** A good, which possess utility, may not give pleasure when consumed. A thing, which possesses (પાસે હોવું કે ની માલિકી ધરાવવી) utility, may be tasteful (સ્વાદિષ્ટ) and pleasurable (આનંદદાયક) or it may be bitter (કડવું) and distasteful (અરુચિકર, અણગમતું) and as such may not give pleasure e.g. medicines.
- 3. Utility is not inherent (અંતર્ગત, સ્વાભાવિક) property of any good:** Utility of same commodity for same individual can change with changes in place and time of consumption. A blind man cannot see a movie; and it has no utility for him. A vegetarian has no utility in non-vegetarian food. Even for the same individual, a commodity may possess different utilities at different times or different places. A warm suit/ sweater has greater utility in winter than in summer.
- 4. Utility has no legal or moral implication:** The term ‘utility’, as used in economics, has no legal, ethical or moral significance. A thing may be good or bad but if it satisfies a human want, we shall say it possess utility. Possession of a revolver for a hired murderer may not be legal or morally justifiable and yet such weapons do give utility to a person. So utility has no legal or moral binding.
- 5. Utility and satisfaction are not synonyms:** Utility is ‘expected satisfaction’. When a consumer is willing to buy a commodity at a price he merely expects that its consumption

would give him satisfaction, but he would actually get satisfaction only when he consumes it. In other words, actual consumption is not necessary to realize utility but it is necessary to get actual satisfaction. We might purchase a movie ticket because we think that it will entertain us but it might happen that we might not like the movie and we are not satisfied with the movie.

- 6. Utility is subjective:** Utility, being psychological or subjective, cannot be accurately measured or quantified. Utility is basically a personal matter. For example a person who is not attached with art will be willing to give Rs. 100 for a painting while a person with interest in art might be ready to buy the same at Rs. 1 lakh. So utility is purely an individual matter and it changes from person to person.

Forms or Types of utility

There are four main forms of utility

- 1. Form Utility:** By changing form of an article we can give it greater utility. E.g. the transformation (prIvtRn) of a log of wood into a piece of furniture, where furniture will get more price than a log of wood, production of cloth from cotton gives cotton more utility, production of oil from ground nuts helps earn more. This is called form utility
- 2. Place Utility:** Utility can also be increased by transporting a good from one place to another. When timber (ઘમરતી લુકડા) is brought to market it comes to have much greater utility than it had in the forest. Coal when transported from Bihar to Gujarat for energy generation it helps creating more utility. This is place utility.
- 3. Time Utility:** By storing a commodity and selling it at a time of scarcity, we can give it greater utility. For example at the time of cultivating potatoes everyone will be selling the same into the market so due to greater supply the price of potatoes will go down so instead of selling them into the market we can store them in cold storage and at the time of absence of new supply we can sell our potatoes and can earn more. The same applies to kites, crackers, umbrella, raincoat etc. We are saving money for the same purpose, in case of any emergency our saved money has more utility for us.
- 4. Service Utility:** Utility can be created by providing time, efforts, services, knowledge and expertise to other people. Providers of services like teacher, lawyer, accountants etc. do not create anything tangible or material but they do satisfy needs of people. For example a doctor earns money by utilizing the knowledge he has acquired (મેડીસીન; ધ્યાન કરવું) over the period of time. We can include all the services under service utility.

Conclusion:

The want satisfying capacity in a good is termed as utility. Utility is subjective and it has nothing to do with usefulness and welfare. Utility can be created by changing form of a material, by storing it, by transporting a commodity or by utilizing specialized skills and knowledge.

Q-8 Explain briefly the types of goods (Dec. 2013, 4 Marks)

Ans:

Introduction :

As we know human wants are the starting point of all economic activity. They can satisfy wants through goods and services. Goods means the commodities/ products that we use, and services refer to the work that a person may do.

Definition:

Anything that can satisfy human want is called a 'good' in economics.

Types/ Kinds of goods:**• Free goods and economic goods:**

Free goods are those goods that exist in such plenty that you can have as much of them as you like without any payment, e.g. air, sunshine, water etc. They are free gifts of nature.

Economic goods on the other hand are those goods which are scarce and can be obtained only on payment. E.g. mobile phone, books, furniture etc. In economics we are concerned with only economic goods.

One thing should be remembered that the distinction between economic good and free good is not permanent. A good may be free good today and may become economic good tomorrow or the same thing may be free good under certain conditions and an economic good under other. Water of river or at our home tap is free good but the same water in the pouch and bottle is an economic good.

• Consumption goods and capital goods:

Consumption goods are those goods which yield satisfaction directly. They are used by the consumers to satisfy their wants directly, e.g. food, clothing, pen, cold drinks etc. **Also called goods of First Order.**

Capital goods are those goods which help us to produce other goods, e.g. tools, machines, factory building etc. They are **also called Producer's goods or goods of the Secondary Order.** They satisfy our wants indirectly.

• Intermediate goods: Between the consumption goods and capital goods are the intermediate goods. They are the raw-materials used in the production of the final or consumption goods. For instance, in the making of the clothes we wear (i.e. the consumption) we need capital goods like textile machinery or handloom, but we also need raw materials like cotton or silk or other synthetic fibers.**• Material and non-material goods:**

Material goods are the physical products that we can see and touch and can consume. Examples of material goods are land, building, furniture, cash, books etc.

Non-material goods are various kinds of services. They are not tangible. But some of them are scarce and can be transferred. The goodwill of a business falls under this category. It can be bought and sold.

• Transferable and non-transferable goods:

Transferable goods: Most material goods can change their ownership. In such cases, a bodily or physical transfer takes place and the goods may be moved from one place to another. Like if we purchase a washing machine we can move it from show room to our house.

In some cases, however, actual physical transfer cannot take place e.g. in the case of land. In this case, no actual movement is possible, only ownership is changed and this makes them transferable. Hence, goods are called **transferable**, whether they are physically transferred or their mere ownership is transferred.

Non-transferable goods on the other hands are the personal qualities like skill, ability, intelligence etc, which cannot be transferred. Only their services can be used by others.

• Personal and impersonal goods:

Personal goods refer to the personal qualities of a person, e.g. his ability and skill. They are non-material and exist inside him. They are also called **internal goods**. They are **what he is**.

Impersonal goods are those goods which are not personal. They are external and lie outside a person. They are therefore also called **External goods**. They are **what he has**, e.g. land, houses etc.

• **Private and Public goods.**

Private goods are the property of private individuals, e.g. land or buildings owned by them exclusively and not shared with others.

Public goods are those which are common to all and are owned by society collectively, e.g. a town hall, a college, or a hospital.

• **Necessaries, Comforts and Luxuries:**

Necessaries means the minimum amount of goods that we require to maintain our existence. Needs like food, water, clothing, shelter etc. needs to be satisfied for survival. Necessities are the most urgent wants which will be satisfied first.

Comforts: Having satisfied our wants for the necessities of life, we desire to have some comforts too. For a student, a book is necessity, a table and a chair are necessities of efficiency; but cushioned chair is a comfort. Consumption of comforts can be postponed for some time.

Luxuries: Man does not stop even at comforts. After comforts have been provided, he wants luxuries too. ‘Luxury’ has been defined as superfluous consumption, something we could do without. Costly furniture, luxurious car, shower baths, silk clothes, jewellery, meals consisting large number of costly dishes are all luxury. They are unnecessary and one can lead a healthy and useful life without it. Consumption of luxuries can be postponed forever.

Conclusion:

For the simplicity and better understanding of various economic theories it is important to understand the different types of goods. Goods are basically classified based on their tangibility, transferability, exchange capacity, user etc.

Q-9 Clarify the difference between goods and services

Ans:

Introduction:

In economics goods means anything that can satisfy human want. In general goods and services are different but in economics the term ‘good’ includes services also. But for conceptual clarity goods and services can be differentiated based on following points:

Difference between goods and services:

Sr.	Point of Difference	Goods	Services
1	Tangibility	Goods are tangible that means they can be seen and touched.	Services are intangible so they cannot be seen or touched, they can just be felt.
2	Homogeneity (એકસરખાપણું)	Goods can be standardized and can be homogeneous.	Services are heterogeneous (વિભિન્ન, અલગ), they differ from person to person.
3	Consumption, Production and distribution	In goods, production and distribution are separated from consumption.	Production, distribution and consumption are simultaneous (એકી વખતે કે એક સાથે થતું કે કરાતું) processes for services.
4	Role of customer	Customer do not participate in the production process.	Customers are inseparable part of production process in services.
5	Stock	Large quantity of a good can be stored as stock.	Services are very difficult to store.
6	Transfer of ownership	In goods transfer of ownership is possible.	In services the process does not lead to transfer of ownership.

Conclusion:

Goods and services differ from each other on the basis of their tangibility, homogeneity, customer participation, storage capacity and transferability. Though both goods and services possess different characteristics generally in economics 'goods' means both goods and services.

Q-10 Explain the concept of Money and Wealth. (Dec. 2012, 2013, 4 Marks)**Ans:****Money:**

Money means purchasing power. Whenever we want to purchase anything we carry money with us. Money has evolved as substitute of barter system. In modern times all exchanges take place on the basis of money. Money includes currency notes, coins, cheques, debit cards, credit cards etc.

Wealth:

In ordinary sense a person with wealth is a rich man, i.e. one who is prosperous. But in economics even a poor or the poorest man possess some wealth. Further, in the ordinary speech, by 'wealth' people mean money. But in economics money is not the only form of wealth; **anything which has value is called wealth in economics.**

Money and Wealth:

Following table will clarify the distinction between money and wealth:

Sr.	Point of Difference	Money	Wealth
1	Definition	Anything that is generally acceptable as a means of exchange and acts as measure and store of value.	Anything which has value is called wealth in economics.
2	Characteristics	Money is generalized purchasing power which serves as a standard and store of value.	Utility, scarcity and transferability are the main characteristics of wealth.
3	Example	It includes currency notes, coins, debit and credit cards, cheque etc.	It includes land, building, car, mobile etc. over and above money.
4	Liquidity	Money is highly liquid form of wealth.	Except money all other forms of wealth are less liquid.
5	Scope	Money is narrow concept	Wealth is very wide concept which includes money.

Conclusion:

Though money and wealth are somewhat different, money is a small part of wealth. Thus, we can say that all money is wealth but all wealth is not money.

Q-11 Explain the concept of value and price. (Dec. 2012, 4 marks)**Ans:**

Value: Value in economics is different compared to ordinary sense. In economics value means value-in-exchange. Value of any goods refers to the goods that can be obtained in exchange for it. We cannot exchange fresh air for anything so its value in economics is zero even though it is very valuable. A pencil on the other hand, has value because it can be exchanged for something.

Definition: The value of commodity means the commodities or services that we can get in return for it.

It is, in short, a commodity's purchasing power in terms of other commodities and services.

Attributes of value: In terms of economics a good must have some value in the market, it should not be a free good. Only economic goods have value in economic sense. So the following three qualifications are essential for a good to have value.

- i) **It must possess utility** ii) **It must be scarce and** iii) **It must be transferable or marketable**

All these qualities are required together. In absence of any one of these qualities, a good will have no value at all.

Price: In earlier times when people did not know the use of money, they exchanged goods for other goods. This system is called barter. In those days, the price of a commodity meant the commodity or commodities for which it could be exchanged.

Definition: When value is expressed in terms of money, it is called price.

In modern times, however, goods are ordinarily exchanged for money. Therefore, the price of a commodity today means its money value, i.e. the price it commands in the market.

Price and Value: Value is the ratio between two commodities, which means purchasing power of a commodity in terms of other commodities while price is value of a commodity expressed in terms of money. For example one book equals three notebooks and one book equals Rs. 30. In first case three notebooks represent value of one book while, in the second Rs. 30 represents the price of one book.

An important distinction between price and value is that there can be general increase in price but there cannot be general increase in value. Increase in the value of one commodity leads to decrease in the value of other. For example, one fountain pen = 5 pencils. If the fountain pen increases in value, it will buy more pencils than before, which means that pencils have gone down in value.

Conclusion: Value expresses exchange value in terms of another commodity and price expresses the exchange value in terms of money.

Q-12 Explain the concept of wealth and welfare. (Dec. 2012, 4 marks)

Wealth: In ordinary sense a person with wealth is a rich man, i.e. one who is prosperous. But in economics even a poor of the poorest man possess some wealth. Further, in the ordinary speech, by 'wealth' people mean money. But in economics money is not the only form of wealth; **anything which has value is called wealth in economics.**

Before a thing can be called wealth in economics, it must possess three attributes of utility, scarcity and ownership or transferability.

For the purpose of identifying the thing as wealth we need to ask three questions:

1. Can it satisfy a human want? or Does it possess utility?
2. Is it scarce?
3. Is it transferable?

If the answer to all these three questions is affirmative (yes), it is wealth. A negative answer to any one of these questions will exclude it from the category of wealth.

Applying these tests, we find that money, land, building, furniture, machinery, clothes, gold, silver, goodwill of a business, in fact all goods, material and non material, which are objects of human desire, which are scarce and which can be bought and sold in the market, are wealth.

Personal qualities like honesty, skill, ability and intelligence are not wealth. They are a source of wealth but are not wealth in themselves, because they are not transferable. An actor's skill, a surgeon's experience, an advocate's knowledge is not wealth though it brings him wealth.

In the same manner, the oceans, Gulfs, the sun, the moon etc, are not wealth because they cannot be owned or bought and sold.

Welfare: In economics welfare means material welfare as against general welfare. Economists are concerned with material welfare because it can be measured in terms of money. Welfare in economics means economic well being or quality of living standard and optimum distribution of wealth in an economy.

Wealth and Welfare: Wealth and welfare are closely inter-related. Wealth is the means and welfare the end. Following points show relationship between wealth and welfare:

- **Economics studies wealth and not welfare** because there is no general agreement on what welfare means. The idea of welfare varies from individual to individual, from time to time and from country to country.
- **Wealth in general promotes welfare.** If a man happens to be a rich man, he will be able to live well himself and may also help others. Wealth thus promotes welfare. Poverty is a great curse (શુભ) and root of many evils. But wealth promotes mental, moral and physical well-being of the people.
- **Welfare of people means something good.** While on the other hand wealth may not necessarily be good and useful. It may actually be harmful. E.g., poisonous drug, opium, wine, tobacco etc. These are regarded as wealth, but their use does not promote human welfare.
- **Increase in wealth does not necessarily mean increase in welfare.** It only means that the number of economic goods, which have become the property of people, has increased, whereas the number of free goods like fresh air and water, which are highly desirable and useful, has decreased. It cannot be claimed that this state of affairs has promoted the welfare of society.

Conclusion: Wealth and welfare are not synonymous (સરખાં, એક જીવ) under all circumstances. But, on the whole, wealth is a powerful means of promoting human welfare.

Q-13 Write a note on types of wealth

Following are the different types of wealth:

- **Individual wealth:** The wealth of an individual consists of (a) his material possessions or property like cash, land, buildings, live stock, furniture and stocks and shares; (b) non material goods like the goodwill of his business which commands a price in the market. But we do not include in wealth his personal qualities like skill and intelligence, for they are not saleable. We also deduct the money he has borrowed and has to pay back.
- **Personal wealth:** Personal qualities like skill, ability, intelligence, experience are not wealth as explained above. They are given only the courtesy title of ‘personal wealth.’
- **Social or communal wealth:** It consists of State and Municipal property, that is, things owned by a society or community in common. They include among other things, the assembly chamber, the secretariat buildings, roads, dams, canals, State railways, public parks, libraries, museums etc.
- **National wealth:** The term ‘National Wealth’ may be used in two sense, a narrow sense and a wide sense. Narrowly it consists of the aggregate wealth of all citizens, excluding the debts due to one another. In the wider sense, however, national wealth may also include rivers, mountains, a good climate, good government, high character of people etc. They are valuable assts. But, in this sense, the meaning of wealth is too wider to become synonymous with economic good.
- **Cosmopolitan wealth:** It is the wealth of the whole world, a sum total of the wealth of all nations. It includes the wealth of all countries in the strict economic sense as well as rivers, mountains and all other natural resources which are regarded as wealth in the wider sense.
- **Negative wealth:** This refers to debts owned by individuals or states. If something is a nuisance, say wild pigs or stray cattle damaging the crops, it may also be regarded as negative wealth.

Q-14: Write a short note on Consumer’s Surplus. (Dec. 2013, 4 marks)

Ans:

Introduction:

Consumer’s surplus is one of the most important concepts in economics. This concept was first visualized by a French engineer A. J. Dupuit in 1844. Afterwards Prof. Alfred Marshall gave a scientific treatment to this concept in 1879.

Definition:

According to Marshall, “The excess of price which a person would be willing to pay rather than go without the thing, over that which he actually pay is the economic measure of his satisfaction. It may be called consumer’s surplus.”

So consumer’s surplus = Total utility – Total amount spent.

Symbolically,

$$P_1 - P_0 = \text{Consumer’s Surplus, where } P_1 > P_0$$

In the above formula, P_1 is the maximum price the consumer is willing to pay for the unit of commodity rather than go without it while P_0 is the actual price which he does pay.

Explanation:

We can illustrate the concept of consumer’s surplus with the help of the table given below:

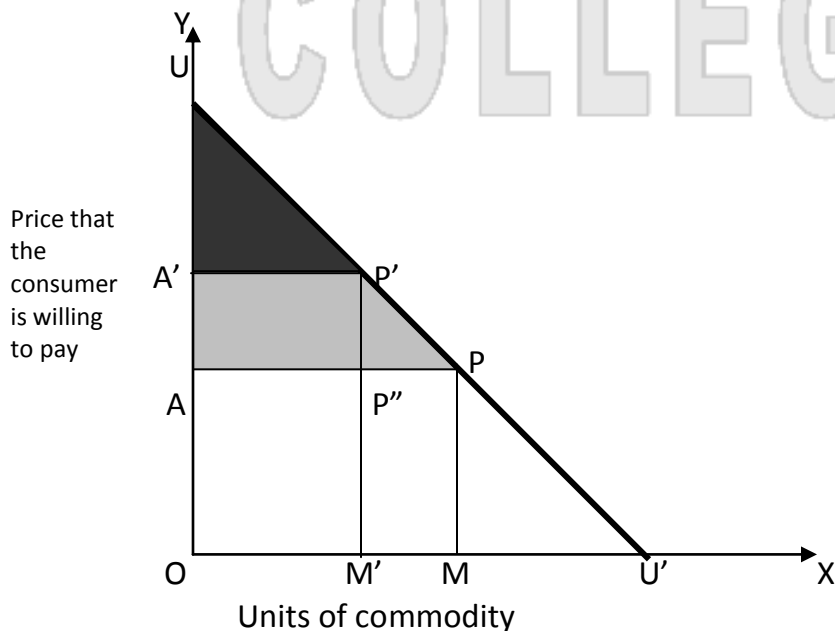
Units (Pizzas)	Marginal Utility	Price (Rs.)	Consumer’s surplus
1	200	50	150
2	180	50	130
3	150	50	100
4	110	50	60
5	50	50	0
Total Units Purchased = 5, Total Utility = 690, Total Money Spent = Rs. 250, Consumer’s surplus = 440			

Consumer’s surplus = 690-250 = 440.

It is assumed in the above table that the price of pizza in the market is Rs 50 per Pizza. The consumer will purchase as many pizzas as make his marginal utility equal to the price. Thus he will purchase 5 pizzas and pay Rs. 50 each. In this way he will spent in all Rs. 250. But total utility of the 5 pizzas equal to Rs.690. He thus gets a consumer’s surplus equal to (690-250) = Rs. 440.

Diagrammatic Representation:

We can represent consumer’s surplus with the help of the following diagram. Along OX are measured the units of the commodity and along OY is measured Marginal Utility in terms of money which means the price that the consumer is willing to pay, rather than go without a particular unit of the commodity.



If the market price is PM, the consumer will extend his purchase up to the M^{th} unit. That is he will purchase OM quantity. This is so because for this amount his marginal utility equal to the price. But his marginal utility for the earlier units is more than PM. So the purchase less than M^{th} unit will give him surplus. The total consumer's surplus thus derived by him when OM units are purchased at PM price is shown by the shaded area UAP. If the market price rises to $P'M'$, he will purchase only OM' quantity and the consumer's surplus will fall to the smaller triangle $UA'P'$.

Criticism / limitations of Consumer's Surplus

The concept of Consumer's surplus has been criticized on several grounds:

1. **Imaginary:** It is said that this is a purely imaginary idea. You just imagine what you are prepared to pay and you proceed to deduct from that what you actually pay. It is all hypothetical. One may say that one is prepared to pay anything. Hence it is unreal.
2. **Difficult to Measure:** It is difficult to measure Consumer's surplus exactly. Few can say what they would be prepared to pay for a thing. Besides, different people are prepared to pay different amounts.
3. **Surplus Exhausted:** It is assumed that a consumer will purchase a commodity until his surplus is exhausted. But a consumer does not run after a surplus yielded by one commodity. He has to weigh the utilities of other commodities too.
4. **Not Applicable to Necessaries:** The idea of Consumer's surplus does not apply to the necessities of life. In such cases the surplus is immeasurable. What would not a man be prepared to pay for a glass of water when he is dying of thirst?
5. **Marginal Utility of Money:** The concept assumed that marginal utility of money is constant which not true. Because as a man is spending the money it becomes dearer to him and he will think of using it wisely so as to get more satisfaction.

Conclusion: We may conclude that the exact measurement of Consumer's surplus in a market is impossible. But on that account we cannot say that the concept of Consumer's surplus is of no value. We can have some estimate of Consumer's surplus, rough as it may be. Even this is of very great practical value for businessmen, planners and policy makers.

Q-15 Distinguish (ભેદ ઓળખવો)/ Differentiate (ભેદ પાડવો, જુદું પાડવું) between Ordinal (ક્રમવાચક) Utility and Cardinal (મૂલઅંક) Utility (December 2014, 4 Marks)

Ans:

Introduction:

Utility is the want satisfying capacity in a good. In economics there are two theories that are able to measure the satisfaction of individuals. These are the cardinal utility theory and the ordinal utility theory.

Meaning:

Cardinal Utility: Cardinal utility states that the satisfaction the consumer derives by consuming goods and services can be measured with numbers. Cardinal utility is measured in terms of *utils*. For example, after eating an apple a person says that he got 110 utils of satisfaction. So it is a numeric measure of utility. The concept of cardinal utility was developed by Prof. Marshall.

Ordinal Utility: Ordinal utility states that the satisfaction the consumer derives from the consumption of goods and services cannot be measured in numbers. Rather, ordinal utility uses a ranking system in which a ranking is provided to the satisfaction that is derived from consumption. The concept of ordinal utility was advocated by Prof. J. R. Hicks.

Difference between Cardinal and Ordinal Utility:

Point of Difference	Cardinal Utility	Ordinal Utility
Meaning	Utility can be measured in terms of utils. It emphasizes (પ્રત્યેક યુટિલિટી) on units of satisfaction.	Utility cannot be measured but can be compared as rank. So it emphasizes on ranking commodities in order of high to low satisfaction.
Given by	The concept of Cardinal Utility was given by Prof. Alfred Marshall.	The concept of Ordinal utility was given by Prof. J. R. Hicks and R. G. D. Allen.
Used in which theories	Cardinal utility is used in diminishing marginal utility and equi-marginal utility analysis.	Ordinal utility is used in Indifference Curve analysis.
Nature of analysis	Cardinal utility is a quantitative measure of satisfaction.	Ordinal utility is a qualitative measure of satisfaction.
Process of analysis	Using Cardinal utility a customer can assign a number to a product that when consumed was able to satisfy their needs.	Using ordinal utility a customer can rank the products according to the level of satisfaction that was derived.
Assumption	In cardinal utility it is assumed that consumers derive satisfaction through consumption of one good at a time.	In ordinal utility it is assumed that a consumer may derive satisfaction from the consumption of a combination of goods and services, which will then be ranked according to preference.
Example	Utility derived from an orange is 50 utils.	An apple is ranked 1 st while an orange is ranked 2 nd .

Conclusion: Both cardinal and ordinal utility concepts are useful in economic analysis. In case we have to deal with only one good, cardinal analysis is useful while in case of multiple goods, ordinal analysis will help in ranking the goods in order of preference.

Q-16 What do you mean by demand and supply? Clarify the difference between supply and stock.

Ans:

Demand:

Everyday an individual dreams or plans about things he wants to use, consume or enjoy. In ordinary sense the term ‘desire’ is taken as synonym (સમાનાર્થી) to ‘demand’ but in economics mere desire is not demand because an individual cannot fulfill all his desires at a time. For example a man wants to own TV, fridge, car, house, furniture and many more but he cannot buy all of it at same time. So in economics, demand means effective demand which fulfills all of the following criteria:

- ⇒ Desire for the commodity
- ⇒ Willingness to pay the price
- ⇒ Ability to pay its price

So we can say that demand for the commodity implies a **desire backed by ability and willingness to pay.**

Supply:

We can define supply as the actual quantity of a particular commodity which is offered in the market for sale at a given price. In other words, by supply we mean various quantities of a given commodity which producers will offer for sale during a given period of time at various corresponding prices.

These definitions highlight two elements in the context of supply: i) Stock of the commodity available in the market and ii) The willingness on the part of producer to offer it for sale, either wholly or partly, a certain stock at a given price.

Difference between Stock and Supply:

Point of Difference	Stock	Supply
Meaning	Stock represents the total output or volume of a commodity which can be offered for sale in a market even at a short notice.	Supply represents the quantity of a commodity which is actually brought into the market for sale.
Relation with price	Price does not have any impact on stock.	Price has significant impact on supply. As price increases supply increases and vice versa.
Increase/decrease	For short period stock more or less remains fixed. It cannot be suddenly increased or decreased.	Generally increase or decrease in supply is possible even at short notice also.
Greater, equal, or less	Stock is always greater or equal to supply. For perishable commodities stock and supply will be equal, for other commodities stock will be greater than supply.	Supply is always equal to or less than stock.
Example	Suppose a car company has produced 200 cars during a month. These 200 cars represent stock of cars.	At a given price if a supplier is ready to sell only 150 cars in the market, then 150 cars represent supply and 50 cars will remain in stock.

Conclusion: stock and supply are closely related with each other but both are different. Stock means the total production and supply means a part of the stock offered for sale at given prices in the market.

COLLEGE

Unit :- 2 Demand Analysis and Consumer Behaviour

Q-1 Explain the concept of Demand Function. (December 2014, 4 marks)

Ans:

Introduction:

A function generally shows relationship between two or more variables. Out of these variables one variable is dependent variable and others are independent variable. A function helps us to study changes in dependent variable when there is a change in any of the independent variable.

Demand Function:

Demand function is a functional relationship between demand of a commodity and the factors that determine and affect it. Demand here is dependent variable and the factors like, price of the commodity, income of the consumer, taste and preferences of consumers, future expectations, prices of related goods etc. are independent variables. In the form of a function, a demand function can be represented as follows:

$$D_x = F(P_x, Y, T, P_y \dots P_z, S, E, \bar{Y}) \quad \text{Where,}$$

D_x = Demand for commodity X

P_x = Price for product X

T = Taste of consumer

S = Size of population

\bar{Y} = Income distribution

F = Function

Y = Income

$P_y \dots P_z$ = Prices of related goods like Y, Z etc.

E = Expectations about future price

Conclusion: A demand function shows relationship between demand and various factors affecting demand. With the help of demand curve change in demand for any commodity because of change in any factor can be known.

Q-2 Explain different determinants of demand. OR Explain different factors affecting demand.

Ans:

Introduction:

Demand can be defined as the desire for a commodity backed by willingness and ability to pay on the part of consumers at a particular time and at a given price. Demand for a commodity is influenced by many factors. These factors are known as determinants of demand, because they determine the quantity of a commodity demanded at a particular time.

Factors affecting demand / Determinants of demand:

The main factors affecting demand are as follows:

1. **Price of the commodity:** Generally, if the price of a commodity decreases, its demand increases and if price increases, its demand will contract. It means an inverse relationship between price and demand. The change in demand due to a change in price is due to two reasons: i) Income effect; which means due to a decrease in price people can buy more amount of the same commodity with the same spending. This means it increases their real income or purchasing power for the commodity. ii) Substitution effect: it means that due to a change in the price of substitute there will be a change in the demand of our product. If the price of substitute goods increases, our commodity will become cheaper compared to its substitute and hence demand for our commodity will increase.
2. **Income:** The household's demand for a commodity is influenced by the size of its income. In most cases, the larger the income, the greater will be the demand. The increased income leads to increase in purchasing power. So demand and income are directly related. Usually the

change in income brings more change on goods of comforts and luxury and less on essentials. Income effect works negatively on inferior quality goods.

3. **Distribution of income:** The pattern of demand for goods also depends on distribution of income. If the distribution is made in favor of rich people, the demand of luxury goods increases and if it is in favor of poor people, there is more demand for primary or necessary goods in market.
4. **Taste and Preference of Consumers:** Taste and preferences of the people can have a powerful influence on the level of demand for a commodity. If a particular commodity comes into fashion, it will be demanded in larger quantity even if its price is high. Conversely, if a commodity goes out of fashion, its demand will decline in spite of fall in price.
5. **Prices of related commodities:** Related commodities can be substitute or complementary. If there is a change in the price of these goods they will have an effect on the demand of a commodity. For example, if prices of Coca-cola decreases, though the prices of Pepsi is stable, its demand decreases (substitutes). On the other hand if the prices of a car is stable but if the price of petrol increases, demand for cars will decrease (complementary).
6. **Size of population:** Total demand for a commodity depends upon the number of its consumers. The larger the number of consumers, the larger will be the demand for that commodity. the number of consumers for a commodity depends upon the size of population. For instance, the number of consumers of wheat will increase with the growth of population in the country. Hence demand for wheat will increase.
7. **Expectations about future price:** Demand for a commodity will depend upon people's expectations about its future price. If there is any expectation or rumor about increase in price in future, the demand of a commodity increases in the present e.g. demand for TV will increase in spite of its high price at present, if people expect a further increase in price. Conversely, demand for the same will decrease in spite of its low price at present if people expect a further fall in its price.
8. **Expectation about future income:** If consumers expect a rise in their income in near future they will start spending more at present and thereby the demand for goods increases. And if they expect a decrease in future income their demand and spending will also decrease.
9. **Advertisement:** A lot of money is being spent by businessmen on advertising their products because it helps bringing the demand level up in the market. Advertisement is the source through businessmen can generate awareness of the product and can induce people to at least try the product.

Conclusion: Many factors directly or indirectly have an impact on demand. We need to consider all the determinants because they helps us in taking appropriate decisions at right time which can save our profits and increase our efficiency.

Q-3 Explain the law of demand with exceptions (December 2014, 6 marks)

Ans:

Introduction:

The analysis of relationship between change in price and the consequential (परिणामस्वरूप) change in demand in case of a particular commodity is known as law of demand. The relationship was highlighted by French mathematician A.A Cournot, but it was Prof. Alfred Marshall who presented the price demand relationship in a comprehensive (व्यापक, बहुमूल्य अवलोकन) way.

The Law of Demand:

The law of demand states, “ **Other things being equal, when the price of a commodity increases its demand will decrease and when the price of a commodity decreases its demand will increase.**”

According to the law of demand, there is an **inverse** (व्यपरीत, व्यस्त) or **negative** relationship between a change in the price of a commodity and the consequential change in the demand for that commodity.

Assumptions:

The phrase ‘other things being equal’ serves as assumption of the law. It assumes all the factors affecting demand except price of the commodity as constant.

Demand schedule:

The law of demand as stated earlier can best be understood with the help of a demand schedule and a demand curve.

A demand schedule is a table or collection of data which shows the quantities of a commodity demanded at different prices in a given period of time.

The table on the right is demand schedule of an imaginary consumer for oranges:

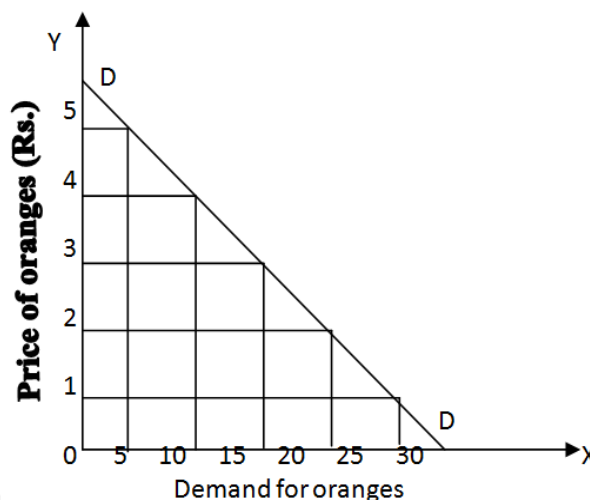
Price of orange (per unit in Rs.)	Quantity demanded (in units)
1	25
2	20
3	15
4	10
5	5

Demand Curve:

A demand curve is diagrammatical representation of relationship between price and demand of a particular commodity.

The figure on the right is the demand curve for the above demand schedule for oranges.

In the diagram Y-axis shows price of oranges while X-axis shows demand for the oranges. The relationship is shown by the linear demand curve DD which shows different alternatives available with the consumer to buy oranges at different prices. Here we can see that when the price was Re. 1 the consumer was ready to buy 25 units of oranges but as the price increased to Rs. 5 per unit he is ready to buy just 5 units. Thus, we can say as price of a commodity increases its demand decreases.



The negative relationship between price and demand is due to substitution effect and income effect. **Substitution effect** means as the price of a commodity increases people will shift their purchase to other cheaper substitutes so the demand for the good will be replaced by its substitute. On the other hand as the price of a good increases the purchasing power or real income (i.e., income in terms of goods) of the consumer decreases. This effect is called **income effect**.

Exceptions to law of demand:

The law of demand will not work under the following situations:

1. **Giffen goods:** Sir Robert Giffen observed in the mid 19th century that when the price of bread increased, the low paid workers in Britain spent more on it (since it was their staple food) and they cut on meat. That is, they substituted bread for meat. This means that the demand for bread increased when its price went up, which is obviously an exception to the law of demand.

2. **Changes in expectations:** When prices are rising and if consumers expect a further rise in the price of the goods, demand for the commodity will increase in spite of rise in the price of the commodity.
3. **Trade Cycle:** In times of general economic prosperity, people buy more even when the price goes up, since the income keeps on increasing. Opposite is the case when there is general depression in the economy.
4. **Status symbols and brands:** It often happens that different brands of commodities are priced differently. Some people conscious of their higher status buy more of the higher priced brand than lower priced brand, because the former is considered as status symbol. So in case of commodities which serve as status symbol, law of demand will not work.
5. **Veblen Effect:** This exception is associated with the name of the economist, Thorstein Veblen who propounded the doctrine of conspicuous (દરદ નજરે પડતું, ઉત્કૃષ્ટ) consumption. According to Veblen, some consumers measure the utility of a commodity entirely by its price i.e., for them, the greater the price of a commodity, the greater its utility. For example, diamonds are considered as prestige good in the society and for the upper strata of the society the higher the price of diamonds, the higher the prestige value of them and therefore the greater utility or desirability of them. In this case, some consumers will buy less of the diamonds at a lower price because with the fall in price its prestige value goes down.
6. **Change in fashion:** A change in fashion and taste of consumer affects the market for a commodity. People will purchase more of a good which is in fashion at higher price but they are not interested in purchasing the out of fashion products even at lower price.

Conclusion:

Law of demand suggests that there is negative or inverse relationship between price and demand of commodity. So law of demand shows the direction of change in demand with respect to change in price of a commodity. In general this law holds good but there are certain where law of demand doesn't work.

Q-4 Give the meaning of Elasticity of Demand. (December 2012, 4 marks)

Ans:

Introduction:

Law of demand shows that there is inverse relationship between price and demand of a commodity, but it fails to show degree of relationship between price and demand. So economists take help of the concept of Elasticity of Demand in order to measure the proportionate relationship between price and demand.

Elasticity of Demand:

The tool to measure the effect of changes in any one of the determinants in the demand function, viz. price, income, expectation, advertisement expense etc., is known as elasticity of demand.

Definition:

Elasticity of demand can be defined as, “the degree of responsiveness (% change) of quantity demanded of a commodity due to a change in any of the determinants in demand function, while other determinants in the demand function are held constant.”

Equation:

General equation for elasticity of demand (E_d)

$$E_d = \frac{\% \text{ Change in quantity demanded of commodity X}}{\% \text{ Change in determinant Z}}$$

Symbolically $E_d = (\Delta Q / Q) / (\Delta Z / Z) = (\Delta Q * Z) / (\Delta Z * Q)$

Where, E_d = Elasticity of demand

- Δ = Change Q = Quantity demanded
 Z = Determinant which may be one of the following.
- i) Current price of the commodity (P_x)
 - ii) Current price of related goods (P_R)
 - iii) Current income (Y)
 - iv) Expected price of commodity (EP_x)
 - v) Advertisement Expenditure (A) etc.

The larger the value of this elasticity, the more responsive is quantity demanded to changes in the determinant under consideration.

Conclusion:

When businessmen or economist wants to know specific impacts of any determinant on demand they use the concept of elasticity of demand. It shows how closely demand of a commodity and the determinant are related.

Q-5 Describe the concept of price elasticity of demand or explain the meaning and types of price elasticity of demand. (December 2014 & 2013, 6 Marks)

Ans:

Introduction:

The concept of law of demand only provides the directional relationship between price and demand which is insufficient for management decision makers. In order to make the concept more usable we must know the degree to which the change in price will affect demand. For this purpose the concept of elasticity of demand was developed.

Elasticity of demand: Elasticity of demand can be defined as, “the degree of responsiveness (% change) of quantity demanded of a commodity due to a change in any of the determinants in demand function, while other determinants in the demand function are held constant.”

Elasticity of demand has four types viz (namely, ચાર પ્રકારો) Price elasticity of demand, Income elasticity of demand, Cross elasticity of demand and Advertisement elasticity of demand. Here we will discuss about price elasticity of demand.

Price elasticity of demand: The law of demand tells us that as the price of a commodity falls, the quantity demanded increases and vice versa. But it does not state by how much the quantity demanded decreases as a result of a rise in price. To know about the rate we should know the price elasticity of demand, also known as elasticity of demand.

Price elasticity of demand can be defined as, “the degree of responsiveness of demand for a commodity to a change in its price.” It thus represents the rate of change in the quantity demanded due to a change in its price.”

Price elasticity of demand may be measured by the following formula:

$$E_p = \frac{\text{Proportionate change in quantity demanded of a commodity}}{\text{Proportionate change in its price}}$$

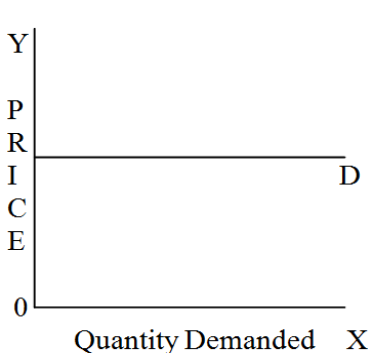
OR $E_p = (\Delta Q/Q_1) / (\Delta P/P_1) = (\Delta Q/\Delta P) \times (P_1/Q_1)$

Where ΔQ = Change in quantity demanded of a commodity, if Q_1 is original quantity and Q_2 changed quantity ΔQ will be $(Q_2 - Q_1)$

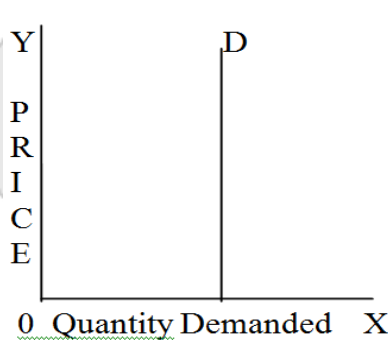
ΔP = Change in price of a commodity, if P_1 is original price and P_2 new price ΔP will be $(P_2 - P_1)$

Types of Price elasticity of demand:

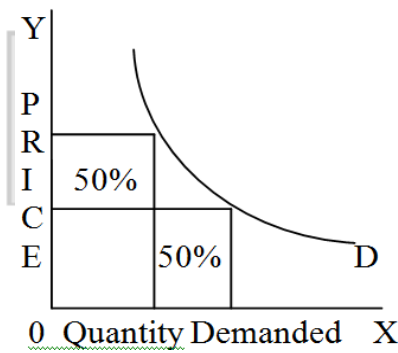
- 1. Perfectly elastic demand:** We can call a price elasticity of demand perfectly elastic when no reduction in price is needed to cause an increase in demand. If this be the case, a firm can sell the quantity it wants at the prevailing prices but none at all at even a slightly higher price. This situation can be seen under perfect competition. Here the shape of demand curve is horizontal. Figure (1) shows the perfectly elastic curve. Here $E_p = \infty$ (infinite)
- 2. Perfectly inelastic demand:** A demand curve can be said to be perfectly inelastic when a change in price, however large, causes no change in quantity demanded. For example salt. Whatever may be the price of salt, we are not using it more or less. Here the shape of the curve is vertical. Here $E_p = 0$. Figure (2) shows the perfectly inelastic curve.
- 3. Demand with unity elasticity:** Where a given proportionate change in price causes an equal proportionate change in demand, the demand curve will be unitary elastic. Here the shape of the demand curve is rectangular hyperbola. Here, $E_p = 1$. Figure (3) shows the curve.



(1)

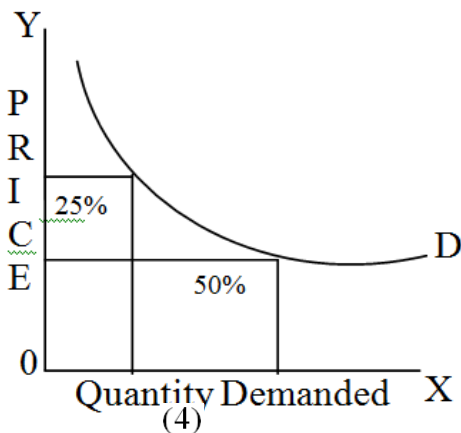


(2)

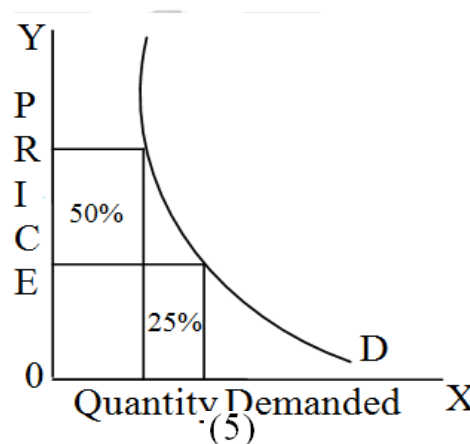


(3)

- 4. Relatively elastic demand:** A demand curve can be said to be relatively elastic when a reduction in price leads to more than proportionate change in demand. Hence the shape of the demand curve is flat. Such price trend is generally seen for durable or non-perishable goods. Here $E_p > 1$. The curve is shown in figure (4).
- 5. Relatively inelastic demand:** Where a decline in price leads to less than proportionate increase in demand. Here the shape of demand curve is steep. This is applicable in case of necessary goods. Here, $E_p < 1$. Figure (5) shows relatively inelastic demand curve.



(4)



(5)

Conclusion: From the above discussion we can say that there are different five types of price elasticity of demand. All if them are summarized in the following table:

Type	Num Exp	Description	Shape of curve
Perfectly elastic	∞	Infinite	Horizontal
Perfectly inelastic	0	Zero	Vertical
Unity elastic	1	One	Rectangular hyperbola
Relatively elastic	>1	More than 1	Flat
Relatively inelastic	<1	Less than 1	Steep

Q-6 Give the meaning of Income elasticity of demand. (December 2014, 4 Marks)

Ans:

Introduction:

One of the important determinants of demand is income. Income of consumer significantly affects quantity and quality of goods being demanded by consumer. Income elasticity of demand measures the relationship between a change in quantity demanded and a change in income.

Definition:

Income elasticity of demand can be defined as the degree of responsiveness of quantities demanded to a given change in income of an individual.

Formula:

The income elasticity of demand can be measured by the following formula:

$$E_y = \frac{\text{Proportionate change in quantities demanded}}{\text{Proportionate change in income}} \quad \text{OR} \quad \frac{Q_2 - Q_1}{Q_2 + Q_1} = \frac{\frac{\Delta Q}{Q}}{\frac{\Delta Y}{Y}}$$

So $E_y = \frac{\Delta Q}{Q} \times \frac{Y}{\Delta Y}$

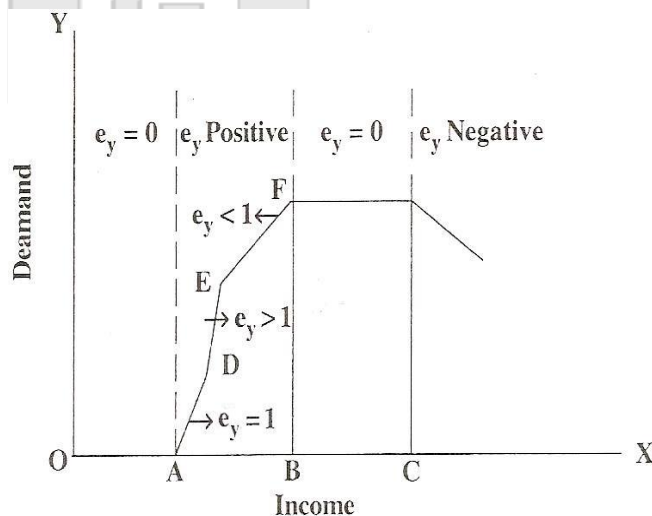
Where Q_1 stands for quantities demanded before the change in income; Q_2 stands for the quantities demanded after the change in income; Y_1 stands for the income before the change; and Y_2 stands for income after the change. ΔQ means change in quantity ($Q_2 - Q_1$) and ΔY means change in income ($Y_2 - Y_1$).

Normally demand for a commodity has a tendency to increase as income increases. Therefore, income elasticity of demand (E_y) is generally positive. But, this may not be so in case of inferior goods.

Types of income elasticity:

Following are the main types of income elasticity of demand:

- $E_y = 0$:** When there is no change in demand in response to change in income, income elasticity is zero or perfectly income inelastic. For example match stick.
- $E_y < 1$:** When the proportionate change in demand is less than proportionate change in income, income elasticity is less than unity or relatively inelastic. This is the case with basic necessities.
- $E_y = 1$:** When the proportionate change in demand is equal to the proportionate change in income, income elasticity is equal to unity.
- $E_y > 1$:** When the proportionate change in demand is greater than proportionate change in income, income elasticity is more than unity. This is the case with luxury goods.



5. **Ey is negative:** With the increase in income of consumer, he prefers to buy less quantity of certain goods. For these goods the income elasticity is negative. Income elasticity is negative in case of inferior goods.

Conclusion: Proportionate change in demand because of change in income of consumer is known as income elasticity of demand. For normal goods, income elasticity is positive but for inferior goods income elasticity is negative.

Q-7 Clarify the concept of Cross Elasticity of demand. (December 2012, 2013; 4 Marks)

Ans:

Introduction:

The demand for certain commodities may be influenced by change in prices of related goods. The study of change in price of related goods and its effect on the commodity in question is called cross elasticity.

Related Goods / Commodities:

Related goods may be of two kinds: substitutes and complements. Commodities are substitutes when one can be replaced by another. For example, Coca-cola and Pepsi. Commodities are complements when a change in the demand for one commodity leads to a change in the demand for some other commodity in the same direction. For example, an increase in the demand for radios will lead to an increase in the demand for dry battery cells.

Cross Elasticity of demand:

The effect of change in the prices of related goods upon the demand for a particular commodity may be determined by measuring the ‘cross elasticity of demand’. Cross elasticity of demand may be defined as, ‘ the proportionate change in the quantity demanded of a particular commodity in response to a change in the price of another related commodity.’ Thus the price of one commodity, say Z, is the interdependent variable whereas the quantity of another commodity, say X, is the dependent variable.

Formula:

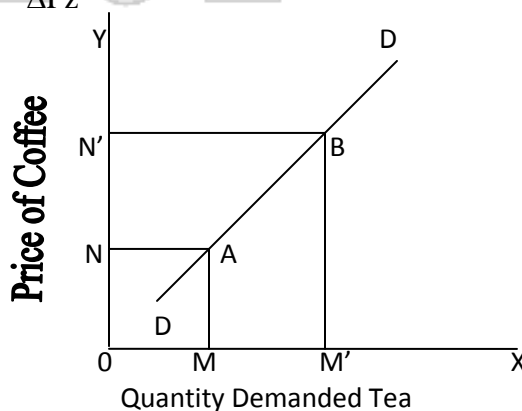
The cross elasticity of demand can be measured by the following formula.

$$E_c = \frac{\text{Proportionate change in the quantity purchased of X}}{\text{Proportionate change in the price charged for Z}}$$

$$E_c = \frac{\frac{Qx_2 - Qx_1}{Qx_2 + Qx_1}}{\frac{Pz_2 - Pz_1}{Pz_2 + Pz_1}} \quad \text{OR} \quad \frac{\Delta Qx}{Qx_1} \times \frac{Pz_1}{\Delta Pz}$$

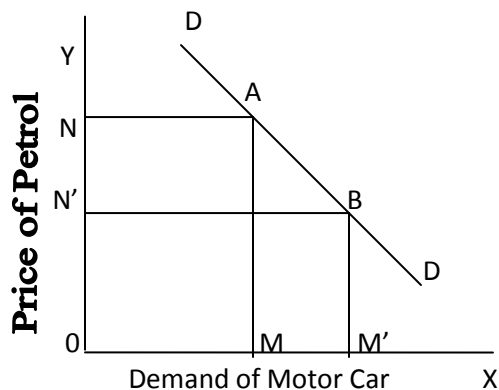
Types of Cross Elasticity of Demand:

- 1. Positive cross elasticity:** usually when two commodities are used as substitutes for each other, cross elasticity, of demand is positive e.g. tea and coffee, Parle-G and Tiger, Pepsi and Coca-cola, Pepsodent and Colgate, Chick and Sunsilk etc. following is the figure showing the demand curve for tea and coffee.

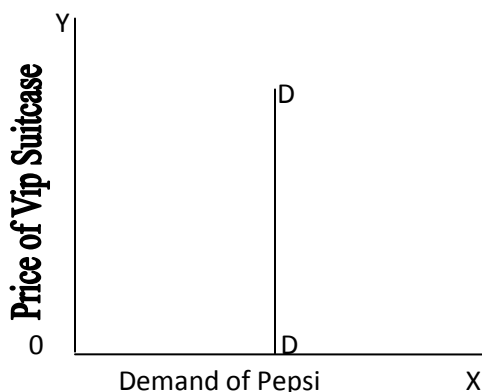


- 2. Negative Cross Elasticity:** Usually, when two things are complementary to each other, cross elasticity is negative and demand of curve is with negative slope as in the figure shown below, e.g. petrol and motor

car, fountain pen and ink. The following figure shows the relationship between change in demand of motor car as a result of change in price of petrol. As the relationship is negative the demand curve slopes downwards from left to right.



3. **Zero cross elasticity:** When two commodities are completely unrelated, there is no effect of change in the price of 'Z' on demand of 'X'. As a result, demand change is zero percent and the demand curve is parallel to vertical line. For example Pepsi and VIP suitcase. As there is no interrelation between Pepsi and VIP suitcase the demand for Pepsi will be zero elastic in relation to change in price of VIP suitcases.



Conclusion:

The concept of cross elasticity is generally used by the firms having multiple products to decide about pricing of the products. Sometimes it happens that some of the goods of the same company serve as substitute e.g. Biscuits produced by Parle will serve as substitute to one another. If the price of Parle – G changes it will affect the sales of Crack jack, Marie and Monaco. So if the company knows at what price level it can sell optimum units of all the products it can certainly earn more benefit.

Q-8 Explain the concept of inferior goods. (December 2013, 4 Marks)

Introduction:

Increase in income of consumer leads to increase in demand of certain goods which are called normal goods while it leads to decrease in demand for certain goods which are called inferior goods.

Definition:

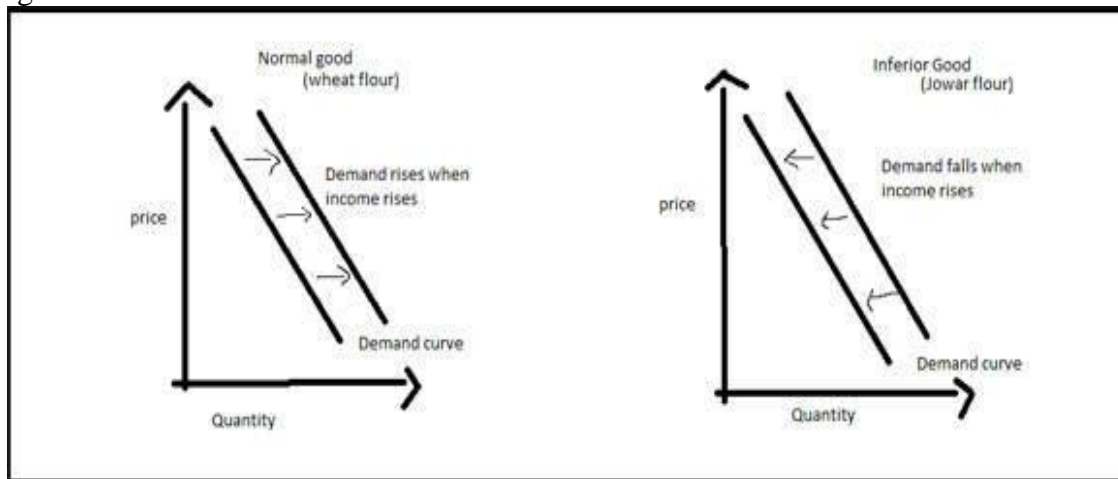
An inferior good is a type of good whose demand declines when income rises. In other words, demand of inferior goods is inversely related to the income of the consumer.

Description:

For example, there are two commodities in the economy -- wheat flour and jowar flour -- and consumers are consuming both. Presently both commodities face a downward sloping graph, i.e. the higher the price the lesser will be the demand and vice versa. If the income of consumer rises, then he would be more inclined towards wheat flour, which is a little costly than jowar flour.

The mindset of the consumer behind this behavior is that now he can afford wheat flour because of his increase in income. Therefore, he will switch his flour demand from jowar to wheat. Hence

jowar, whose demand has fallen due to an increase in income, is the inferior good and wheat is the normal good.



Conclusion:

As opposed to demand for "normal goods," which goes up as income increases, demand for inferior goods goes down as income increases. Consumers of inferior goods "trade up" to higher priced goods as soon as they can afford it.

Q-9 Clarify the meaning of Substitution Effect. (December 2013, 4 Marks)

Introduction:

When price of a commodity decreases it leads to two effects income effect and substitution effect.

Substitution Effect:

When the price of one commodity decreases and that of other commodities remain constant, it becomes cheaper and more attractive for purchase. Here consumer will be ready to purchase more of the cheaper commodity by even reducing expenditure on the commodities whose price remained unchanged.

On the other hand if the price of a commodity increases, it becomes unattractive for purchase so consumer purchase less of the costly commodity and more of the commodities whose price remained unchanged.

For example, suppose a consumer is purchasing 10 oranges and 10 apples. If price of oranges decreases, he will be tempted to purchase more of oranges so his new purchase might be 15 oranges and 8 apples.

Conclusion:

This substitution of one commodity with the other because of change in price of a commodity is known as 'substitution effect.'

Q-10 Clarify the concept of 'Income Effect'.

Introduction:

Change in price of a commodity has significant effect on purchasing decision of a consumer. Mainly change in price leads to substitution and income effects. It is said that Price effect = Substitution effect + Income effect.

Income Effect:

A fall in price of a commodity enables him to purchase more of that commodity with the same amount of money. This means that purchasing power of the consumer will increase. This means that real income of the consumer increases.

Real income means income measured in terms of goods. So if a person earns Rs. 100 and he will be able to purchase 20 Kg. of wheat, his real income will be 20 Kg. of wheat (price per kg. will be Rs. 5).

When price of a commodity decreases, he will be able to purchase more of it because of increase in real income with the same amount of money. So, if price of wheat decreases from Rs. 5 to Rs. 4 with the same 100 Rs. he will be in a position to purchase 25 Kg. of wheat instead of 20 kg. This is called income effect.

On the other hand if the price of wheat increases to 10, he will be able to purchase only 10 Kg. of wheat with 100 Rs.

Conclusion:

The change in real income because of change in price of a commodity is known as income effect. With increased price, real income decreases and when price of a commodity decreases, real income of consumer increases.

Q-11 Explain and Market demand. (December 2012, 4 Marks)

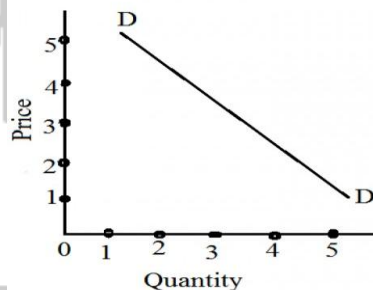
Introduction:

A demand schedule lists prices and corresponding quantities based on law of demand.

Individual demand schedule:

Following table shows demand schedule of an individual. It shows different quantities of a commodity demanded by an individual at different prices. It can be said that there is an inverse relationship between price and quantity demanded because demand schedule follows law of demand.

Price (in Rs.)	Quantity Demanded
5	1
4	2
3	3
2	4
1	5



We can draw demand curve based on the demand schedule which slopes downwards from left to right. It shows that a consumer will purchase more at less price and will purchase less at higher prices.

Market Demand

The demand schedule and demand curve showed above is the case of an individual. The analysis can be extended to a market in the same manner. A market typically consists of many customers; and every customer possesses different tastes and preferences. Hence, individual demand curves differ from person to person in their slopes and shapes. However, we are able to sum up all individual demand curves and derive a market demand curve. In other words, the market demand curve is the sum of all individual demand curves.

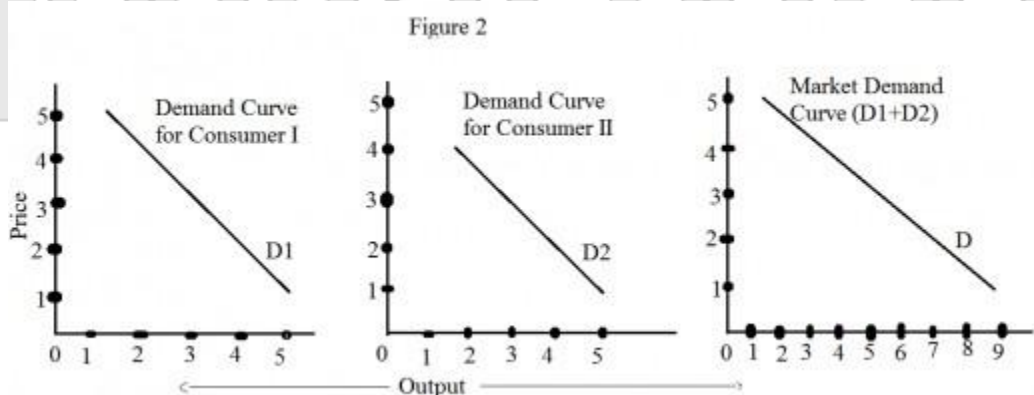
Example:

For simplicity, let us assume that the market consists of only two customers. Table 2 depicts individual demand and market demand.

Price of Commodity X (in Rs.)	Quantity Demand by Consumer I	Quantity Demanded by Consumer II	Market Demand of X
5	1	-	1
4	2	1	3
3	3	2	5
2	4	3	7
1	5	4	9

From above table, we understand that the market demand is obtained by summing up individual demand. The table further shows that at price Rs.5, the market demand is 1 unit; at price Rs.4, the market demand is 3 units; at price Rs.3, the market demand is 5 units and so on. Since there is an inverse relationship between price and quantity demanded, it is obvious that the market demand schedule also follows law of demand.

Similarly, we can derive the market demand curve (D) by the horizontal summation of individual demand curves (D1 + D2).



Conclusion:

Individual demand shows demand for an individual consumer while market demand shows the total demand of all the consumer in a particular market.

Q-12 Explain firm demand and industry demand. (December 2012, 4 Marks)

Introduction:

A firm is a single production unit while an industry consists of a large number of firms producing homogeneous products. For example Maruti Suzuki is a firm producing cars, while all the firms producing cars are considered part of automobile industry.

Industry Demand vs Firm Demand:

The term industry demand is used to denote the total demand for the products of a particular industry, e.g., the total demand for steel in the country. On the other hand, the term firm demand denotes the demand for the products of a particular company, e.g. demand for steel products by TISCO.

An industry covers all the firms producing similar products which are close substitutes to each other irrespective of names, e.g., Nike, Reebok, Puma etc.

From the managerial point of view, mere industry demand is not enough. What is more important is the company’s share in the total industry demand and the relationship between the two, as also the relationship between the company’s share of the demand and that of the competing firms. However projection of the industry demand is the first step in forecasting company’s sales.

The industry demand schedule is a useful guide for studying the demand for a company’s products. The relation of the individual company’s sales to its price should be determined by the industry demand schedule. The degree of relationship will depend upon the competitive structure of the industry.

1. **Monopoly:** Under monopoly there is no difference between the firm and industry as there is only one firm making the product which has no close substitutes. Hence it makes no difference whether we call monopoly firm or monopoly industry viz. government post and telegraph, railways, etc.

2. **Perfect competition:** Under conditions of perfect competition, the firm is an insignificant non- entity. The price is fixed by the interaction of industry’s demand and industry’s supply i.e. by market forces and the firm is simply a price taker. It can sell any quantity at this given price, or nothing at higher price. There is no sense in decreasing price as at current price a firm can sell as much of quantities as it wants. But perfect competition is a myth and the situation is not possible in reality.
3. **Monopolistic competition:** Monopolistic competition is a real market situation under which many firms produce and sell sharply differentiated products bearing different names, marks, brands etc. Firms are engaged in fierce non-price competition through aggressive advertisements such that it is the firm’s demand that really matters. Industry demand is of little importance e.g. goods like soaps, toothpastes, medicines, cosmetics and the like. Under such market condition consumers have strong brand preference, name fascination; trade mark loyalty etc. though they are affected by rival firm’s price and output policies.
4. **Oligopoly:** When sellers are few and their products are standardized, business is highly transferable among rivals, e.g. aluminum, steel and cement producers. The company’s own demand curve is uncertain; it depends on what rivals do. Usually the sellers charge the same price to stay in the market.

Conclusion:

A firm is a single production unit but before taking any production related decisions, it needs to consider the industry demand also. A monopoly firm is exception to this rule because under monopoly firm and industry are one and same.

Q-13 State the difference between demand for consumer’s goods and demand for producer’s goods. (December 2013, 4 Marks)

Introduction:

Producers’ goods are those which are used for the production of other goods – either consumer goods or producers’ goods themselves. Examples of such goods are machines, tools, looms, locomotives, ships etc.

Consumers’ goods can be defined as those which are used for final consumption. They satisfy the consumers’ wants directly. Examples of consumers’ goods can be ready-made clothes, prepared food, residential houses etc.

Difference:

Following table shows the difference between consumer’s goods and producer’s goods.

Point of Difference	Consumer’s goods Demand	Producer’s goods Demand
Meaning	Consumer’s goods are defined as those goods which are used for final consumption.	Producer’s goods are those which are used for the production of other goods.
Objective	Consumer goods are purchased for satisfaction of wants.	Producer’s goods are produced for selling them and earning profit.
Purchase decision	Consumer’s purchasing decision is affected by size, shape, appearance and performance of product.	Producer’s purchasing decisions are generally guided by profit.
Type of demand	Demand for consumer’s goods is autonomous demand which means that it can change on its own.	Demand for producer’s goods is derived demand which means that it depends on consumer’s purchase decision.
Example	Clothes, TV, AC, shoes, soft drink, ice-cream etc.	Raw material, steel, fuel, machinery, tools etc.

Conclusion:

Demand for consumer’s goods is to satisfy wants directly. On the other hand producer’s goods are produced for selling them in the market to earn profit.

Q-14 Explain the concept of demand for perishable goods and durable goods. (December 2014, 4 Marks)

Introduction:

On the basis of usage goods can be divided into durable goods and perishable (non-durable) goods. Durable goods can be used over a period of time while perishable goods can be used only once.

Difference:

Following points clarify the difference between durable goods and perishable goods.

Point of Difference	Demand for Durable goods	Demand for Perishable goods
Meaning	The goods which can be used over a period of time	The goods which can be used only once.
Cost	Durable goods are expensive.	Perishable goods are generally less expensive.
Use by others	Durable goods can be used by many people simultaneously. For example a movie on TV can be seen by 4-5 members of a family.	Perishable goods can be consumed by only one person. For example, a banana can be eaten by one person only.
Life	Durable goods can be used for longer period of time. They can be easily stored.	Perishable goods are available for consumption for shorter period of time. It is difficult to store them for longer period of time.
Purchase decision	Since durable goods costs more the purchase decision is complex and requires high involvement of consumer.	Purchase decision for perishable goods is simple as it costs less. It requires less consumer involvement.
Alternative name	Durable goods are also called white goods.	Perishable goods can also be called non-durable goods.
Frequency of purchase	Since durable goods lasts for longer period of time, its purchase frequency is less. For example during lifetime of a person he may purchase 3 or 4 cars.	Since perishable goods are short lived, purchase frequency is more. For example, milk is required to be purchased everyday.
Determining factors	Demand for durables is determined by such variables like price changes, price differentials, brand loyalty, technological changes, price of close substitutes etc.	Demand for perishable goods are determined by current income of consumer.
Examples	TV, mobile phone, AC, house, Computer, printer etc.	Milk, fruits, vegetables, petrol etc.

Conclusion:

Demand for durable goods and perishable goods are very much different from each other. Yet, both the goods are necessary for the human beings.

Unit:- 3 Production, Cost and Revenue Analysis

Q-1 What is production? Write a note on production function.

Ans:

Introduction:

The basic function of a firm is to produce one or more goods and/or services and sell them in the market. Production requires employment of various factors of production. Thus, every firm has to decide what combination of various factors of production, also called inputs, to choose to produce a certain fixed or variable quantities of a particular good.

Meaning of production:

Production in its narrow terms means conversion of raw materials or inputs into output or finished products. In broader sense it means creation of utility.

Production function:

The term production function refers to the relationship between the inputs and the outputs produced by them. A production function expresses the technological or engineering relationship between output of a good and inputs used in production, namely land, labor, capital and enterprise.

Thus, a production function could be written as

$$Q = f(L_d, L, K, M, T)$$

Where, Q= output in physical units of good X, L_d = Land employed, L = Labor units employed, K = capital units employed, M= Managerial units employed, T= Technology employed in the production of Q

The function assumes that output is an increasing function of all inputs.

Short run production function:

Short run production is one where some factors of production are fixed i.e. land and capital and other are variable i.e. labour, fuel, raw material etc. For simplicity we consider only two factors i.e. Labour (L) and Capital (K). Based on these two factors we get the following as short run production function:

$$Q = f(\bar{L}, K)$$

Where, Q = output, f = functional relationship, L = Labour and K = Capital (Bar on K indicate that it is held constant)

Long run production function:

Long run can be defined as a period where all the factors of production are variable. All the factors can be either increased or decreased in different proportions. The long run production function is represented as follows:

$$Q = f(X_1, X_2, X_3, \dots, X_n, T)$$

Where, Q = output, f = functional relationship, X₁, X₂, X₃ etc. = factors of production, T = technology which is constant.

Conclusion:

Production function shows the relationship between inputs and output. It shows that there is direct relationship between inputs and output up to an extent. So as input increases, output will also increase.

Q-2 Explain the law of variable proportion. (December 2013, 6 Marks) Or write a note on short run production function.

Introduction:

In economics, the production function with one variable input is illustrated with the well-known Law of Variable Proportions. The law of variable proportion is one of the fundamental laws of

economics. It has also been called as the law of diminishing marginal returns (also sometimes known as Law of Diminishing Marginal Productivity).

Law of Variable Proportions:

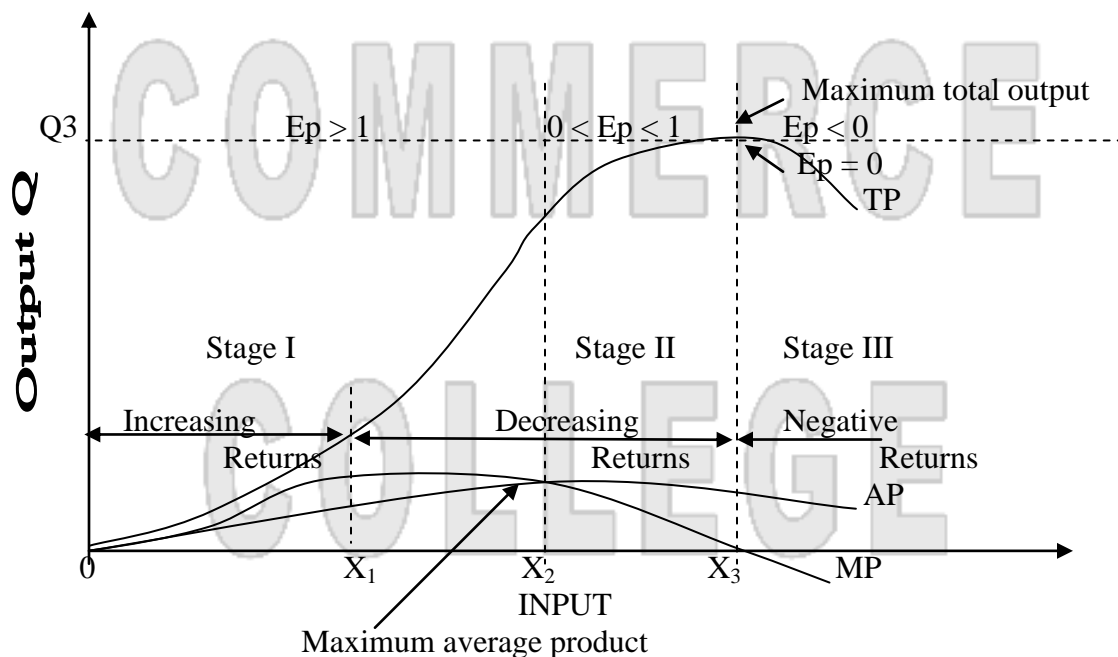
Law of variable proportion shows the input-output relationship or production function with one factor variable while other factors of production are kept constant. Suppose a farmer has 20 acres of land to cultivate. The amount of land and capital is supposed as fixed factor of production. The farmer can, however, vary the number of men to be employed on its cultivation. Labor is thus the variable factor. The change in the number of men will change output.

Assumptions of the theory

- 1. Constant technology:** If technology changes, marginal and average product may rise instead of diminishing.
- 2. Short run:** The law operates in the short run because it is here that some factors are fixed and others are variable. In the long run, all factors are variable.
- 3. Homogeneous inputs:** The variable input as applied unit by unit is homogeneous or identical in amount and quality.
- 4.** It is possible to use various amounts of a variable factor on the fixed factors of production.

Three Stages of Production

The total, marginal and average product curves in the following figure demonstrate the law of variable proportions. The figure also shows three stages of production associated with Law of Variable Proportions.



The total product curve is divided into three segments popularly known as three stages of production as under:

Stage I

1. Stage I is the segment from the origin to point X_2 . At this point, the marginal product of X equals its average product $AP = MP$
2. X_2 is, of course, also the point at which the average product is maximized.
3. In this stage, the production function is characterised first by increasing marginal returns to the variable factor from the origin to point X_1 and then by diminishing marginal returns from X_1 to X_2 .
4. In this stage, it is not correct to understand that only increasing marginal returns take place. For upto a point, increasing returns and thereafter diminishing returns take place. Stage I should not therefore be identified with increasing marginal returns only.

Stage II

The second stage lies in the range from X_2 to X_3 . In other words, stage II begins where the average product of the variable factor is maximized and continues to the point at which total product is maximized and marginal product is zero. This stage is characterised by diminishing returns to the variable input over its entire range. That is, although total product is increasing in this range, it does so at a continuously decreasing rate.

Stage III

Finally, we have stage III, the area beyond X_3 where the total product curve starts decreasing. In this range, the marginal product of the variable factor is negative.

Following table sums up the three stages of law of variable proportions:

Total Physical Product	Marginal Physical Product	Average Physical Product
Stage I		
Increases at an increasing rate	Increases, reaches its maximum and then declines till $MP = AP$	Increases and reaches its maximum
Stage II		
Increases at a diminishing rate till it reaches maximum	Is diminishing and becomes equal to zero	Starts diminishing
Stage III		
Starts declining	Becomes negative	Continues to decline

Conclusion:

A profit maximizing firm which wants to decide the level of production will always choose stage II because in stage I it is possible for the firm to increase profit by increasing the labour while in stage III Marginal Product is negative so additional labour will lead to decrease in Total Product.

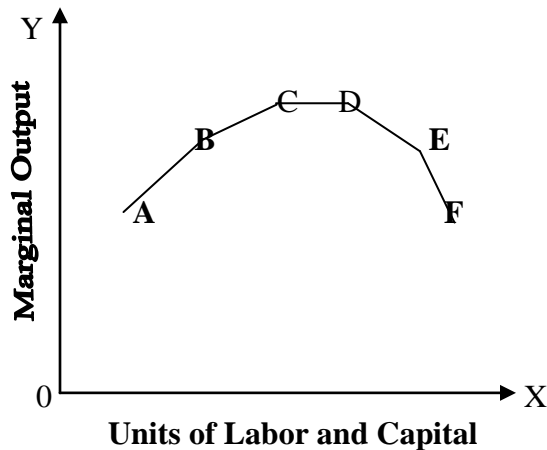
Q-3 Write a note on law of returns to scale. OR Explain long run demand function.**Introduction:**

In order to produce anything we require the services of the various factors of production, namely, land, labor, capital etc. These factors of production are to be used in a certain definite proportion. Any change in the proportion of these factors brings about a change in the total production. An increase in the use of some factors may result in increasing, diminishing or constant returns. The detailed discussion of the laws is as follows:

Returns to scale

Let us suppose that a farmer has a plot of land worth 10 acres. He is interested in increasing the production from his plot of land and with this end in view he applies more and more units of labor and capital on the same plot of land. Let us assume that the cost of one unit of labor and capital is Rs. 1000. This, then, can be illustrated as below:

Area of Land	Units of Labor and Capital	Total Production	Average Production	Marginal Production	Change
10 acres	1	10	10	10	Increasing Returns
10 acres	2	22	11	12	
10 acres	3	36	12	14	Constant Returns
10 acres	4	50	12.5	14	
10 acres	5	61	12.2	11	Diminishing Returns
10 acres	6	68	11.3	7	



In the figure above along OX we have measured the unit of labor and capital and along OY the marginal output. Production first increases at an increasing rate (represented by the line ABC), then at a constant rate (represented by the line CD) and ultimately at a diminishing rate (represented by the line DEF). The law of diminishing returns operates after point D.

The law of increasing returns:

The law of increasing returns is said to operate in industry when an increase in the labor and capital bring a more than proportionate increase in production, that is, the application of successive units of labor and capital results in an increase in the total output at a continuously increasing rate.

In terms of cost, it may be said that the law of increasing returns means the lowering of the marginal costs as the industry is expanded. As marginal cost indicates price, we may say that the law of increasing returns operates in an industry, if with every expansion of its output, the price of the product falls.

The law of constant returns:

The second law is known as the law of constant returns which operates in the transitional stage between the law of diminishing returns and increasing returns. The relationship between increasing and diminishing returns is established not directly but through the tendency to constant returns. The law of constant returns may be defined as follows:

“When all of the productive services are increased in a given proportion, the product is increased in the same proportion.” (Stigler). In other words, the law states that if the productive factors are increased in a given proportion, the output will increase exactly in the same proportion.

It should be noted here that all the factors of production are to be increased in a given proportion. When this happens, production also increases exactly in the same proportion and when production increases in same proportion, the costs do not change but remain constant. Therefore, the law of constant returns is also known as the law of constant costs.

The Law of Diminishing Returns:

The law of diminishing returns is one of the most fundamental laws of economics and is nothing but a generalization drawn from the experience of farmers. Every experienced farmer knows that he cannot raise an unlimited amount of produce profitably from one acre of land. As he cultivates a particular plot of land more intensively by applying more and more units of labor and capital, he will find that, after a certain stage, the produce does not increase in the same proportion. Thus, for example, if he doubles the units of labor and capital, at first the total produce may be doubled or even more than doubled, but if he does this for the second or the third time, the total produce will not be doubled; it will be less than double. In other words, the return from land after a certain point do not increase in the same proportion as compared to the expenditure incurred, that is, the returns increase but at a diminishing rate. This is the essence of diminishing returns.

It should, however, be noted that the law of diminishing returns does not state that the total produce will diminish; total produce increases, as will be seen from the table above, but after a certain point it increases only at a continuously diminishing rate. It is a case of diminishing increment.

Conclusion:

Earlier the economists were of the opinion that the law works on agriculture and cannot be applied to industry. But modern economists said that like agriculture industry is also using combination of various fixed and variable factors so as they are using more of the variable factors on fixed factors after a certain point production tends to give constant returns and then the returns diminish.

Q-4: Write a note on Transformation Curve. OR Explain the concept of Production Possibility Curve (December 2012, 2013, 2014; 4 Marks)

Introduction:

An allocation of the scarce resource of the economy gives rise to a particular combination of different goods and services. Given the total amount of resources, it is possible to allocate the resources in many different ways and, thereby achieving different mixes of all possible goods and services.

Definition:

The collection of all possible combinations of the goods and services that can be produced from a given amount of resources and a given stock of technological knowledge is called the production possibility set of the economy.

Assumptions:

The production possibility curve is based on the following assumptions:

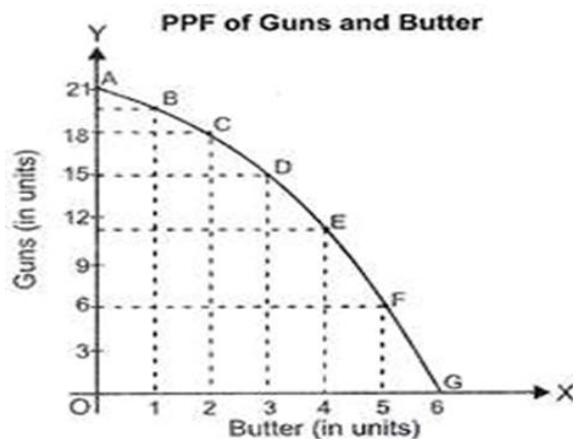
1. There are only two goods produced by an economy X and Y (here guns and butter)
2. The resources available are fixed.
3. The technology remains unchanged.
4. The resources are fully employed.
5. The resources are efficiently employed.
6. The resources are not equally efficient in production of all products. Thus if resources are transferred from production of one good to another, the cost increases. In other words marginal opportunity cost increases.

Production Possibility Schedule and graph:

Let us assume that only two goods are produced in an economy. Let these two goods be guns and butter. The guns symbolize defense goods and butter, the civilian goods. The example, therefore, symbolizes the problem of choice between civilian goods and war goods.

Suppose if all the resources are engaged in the production of guns, there will be a maximum number of guns that can be produced per year. Let it be 21 units (one unit may be taken as equal to 1000, or one lakh and so on). At the other extreme suppose all the resources are employed in production of butter only. Let the maximum quantity of butter that can be produced is 6 units. These are the two extreme possibilities. In between there are others if the resources are partly used for the production of guns and partly for production of butter. Given the extremes and the in-between possibilities, a schedule and graph can be prepared.

Possibilities	Guns (in units)	Butter (in units)	MRT = $\frac{\Delta \text{Guns}}{\Delta \text{Butter}}$
A	21	0	—
B	20	1	1G:1B
C	18	2	2G:1B
D	15	3	3G:1B
E	11	4	4G:1B
F	6	5	5G:1B
G	0	6	6G:1B



Explanation:

In the table the possibility A is one extreme. The society devotes all the resources to guns and nothing to butter. Suppose the society wants one unit of butter. Since resources are limited and fully and efficiently employed, to produce one unit of butter some of the resources engaged in production of guns have to be transferred to the production of butter. It is called Marginal Rate of Transformation (MRT).

It can be define as, “MRT is the ratio of units of one good sacrificed to produce one more unit of the other good.”

Conclusion:

Production possibility curve provides answer to the basic economic problem of what to produce and how much to produce. It suggests how an economy can employ its scarce resources.

Q-5 Give the characteristics of Iso-quant curve. (December 2013, 4 Marks)

Introduction:

To understand a production function with two variable inputs, it is necessary to explain what an Isoquant is. An Isoquant is also known as Iso-product curve, Equal product curve or a production difference curve. These curves show the various combinations of two variable inputs resulting in the same level of output.

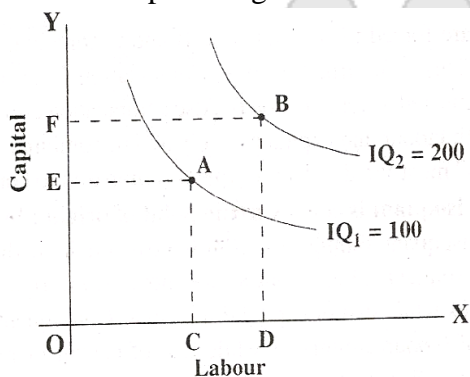
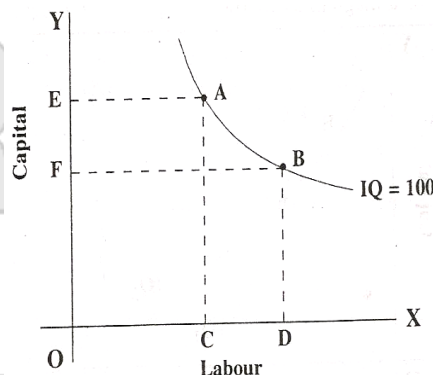
Definition:

We can define an Isoquant as graphical representation of various combinations of two variable inputs resulting in the same level of output.

Characteristics:

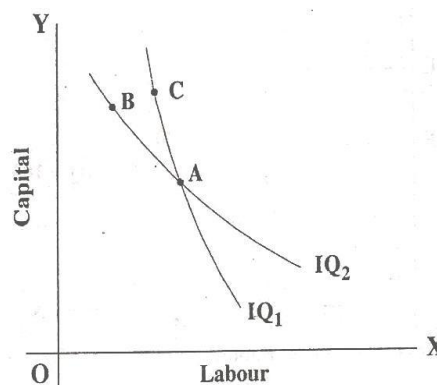
Main properties of isoquants:

1. **Sloping downward to the right:** An isoquant is downward sloping to the right, i.e. negatively inclined. This means that for the same level of output, the quantity of one variable will have to be reduced in order to increases the quantity of other variable. This is also called marginal rate of technical substitution. As the price of one of the inputs increases producers tend to substitute it with the other input to the extent possible. In the isoquant curve to the right both point A and point B gives the same level of output i.e. 100 units.



2. **Higher the isoquant larger the output:** A higher isoquant represents larger output. That is, with the same quantity of one input and larger quantity of the other input, larger output is produced. In the diagram to the left IQ₁ shows 100 units of output while the higher isoquant IQ₂ shows 200 units of output which is larger than IQ₁

3. **Intersection is not possible:** No two isoquants intersect or touch each other. If two isoquants intersect or touch each other, this would mean that there will be a common point on the two curves; and this would imply that the same amount of two inputs could produce two different levels of output which is not logical. In the diagram to the right IQ₁ and IQ₂ intersect at point A which is not possible because the same amount of inputs cannot produce two different levels of output.



4. **Convex to the origin:** Isoquant is convex to the origin. This means that its slope declines from left to right along the curve. In other words, when we go on increasing the quantity of one input say labor by reducing the quantity of other input say capital, we see that less units of capital are sacrificed for the additional units of labor.

Conclusion:

An isoquant curve shows different combinations of two variable inputs which results in the same level of output. Isoquants have negative slope, they give larger output as they move higher, intersection of two isoquants is not possible and because of Marginal Rate of Technical substitution, isoquants are convex to the origin.

Q-6 Write a note on Iso-cost line.

Introduction:

The isocost line is an important component when analysing producer’s behaviour. The isocost line illustrates all the possible combinations of two factors that can be used at given costs and for a given producer’s budget.

Definition:

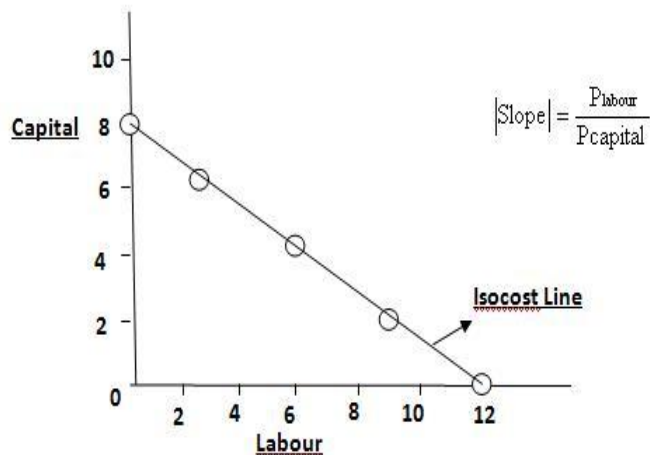
An **isocost line** is defined as locus of points representing various combinations of two factors, which the firm can buy with a given outlay.

In simple words, an isocost line represents a combination of inputs which all cost the same amount.

Iso-cost Schedule:

Suppose that a producer has a total budget of Rs 120 and for producing a certain level of output, he has to spend this amount on 2 factors A (capital) and B (labour). Price of factors A and B are Rs 15 and Rs. 10 respectively. Based on the information we can prepare the following iso-cost line schedule and diagram:

Combinations	Units of Capital Price = 150Rs	Units of Labour Price = 100 Rs	Total expenditure (in Rupees)
A	8	0	120
B	6	3	120
C	4	6	120
D	2	9	120
E	0	12	120



The schedule and diagram above shows combination of two inputs capital and labour. Both are partially substitutes of each other. Given expenditure constraint a firm can decide different combinations of both which costs the same amount of money. Here A, B, C, D, and E are the different combinations which costs the same Rs. 120. Since every combination costs Rs. 120, the producer is indifferent regarding the combinations.

Conclusion:

An iso-cost line shows the combination of two inputs which are partially substitutes of each other and costs the same amount of money. Because of same cost, producers are indifferent about the chosen combination so this line is also called equal product curve or production indifference curve, equal expenditure curve or constant product curve.

Q-7 Explain equilibrium of a firm through Iso-cost and iso-quant curve. (December 2012, 6 Marks). OR Discuss the equilibrium of a firm producer through Isocost and Isoquant curve. (December 2014, 6 Marks)

Introduction:

A rational firm seeks maximization of its profit. Maximization of profit implies minimization of cost. The cost is minimum, when the input combination is optimal. Therefore, choosing the right input combination leads to cost minimization and hence ensures maximum profits.

Assumptions:

The principle of least-cost combination rests on the following assumptions:

1. Capital and labor are the two factors involved in production.
2. All the units of both the factors are homogeneous
3. The prices of the factor units are given
4. The total money outlay is also given
5. There is perfect competition in the factor-market.

In order to analyze producer’s equilibrium, the firm under consideration should know its isoquant map and its isocost line.

Isoquant Map:

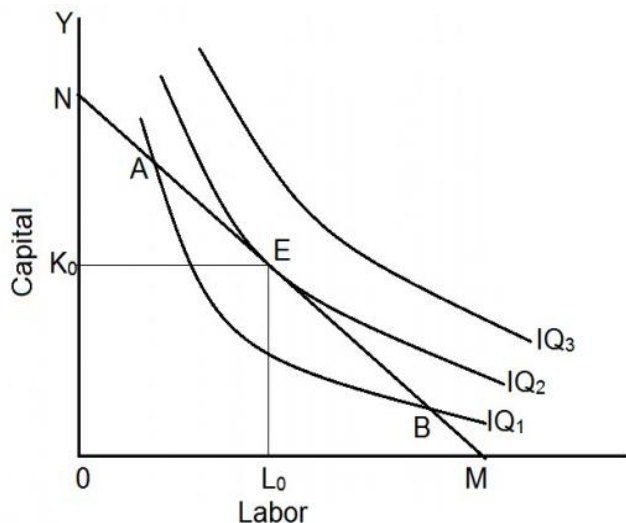
Isoquants indicate various possibilities of combining two inputs. For each level of output, there will be a different isoquant. When a set of isoquants are depicted on a graph it is called an isoquant map.

Iso-cost curve:

An isocost curve represents a combination of inputs which all cost the same amount within the budget limit.

Producer’s Equilibrium:

A producer’s objective is to produce goods at lower price. So the combinations of two products which produces a level of output at minimum cost can be considered as point of equilibrium for a producer. This equilibrium can be established by super imposing different Iso-quant curves on Iso-cost line.



In the given figure, NM is the firm’s isocost line. Isoquants IQ₁, IQ₂ and IQ₃ represent different levels of output. Equilibrium is attained at the point where the isoquant is tangent to the isocost line. The isocost line NM sets the upper boundary for the purchase of the inputs when outlay and input prices are given.

Points A and B satisfy the tangency condition and they lie within the reach of the producer. However, at these points the firm remains at a lower isoquant IQ₁, which yields a lesser level of output than that on IQ₂.

IQ₃ is higher so any point on it will represent higher level of output but since it is outside the budget line, producer cannot attain that level of

output.

Thus, E is the point of equilibrium because it is tangent to Isocost line and it gives the maximum output.

Conclusion:

Producer’s equilibrium can be known with the help of isoquant and isocost curves. The point where isocost line is tangent to the highest possible isoquant is considered equilibrium point.

Q-8 Describe the concept of Fixed cost and Variable cost. (December 2004, 4 Marks)**Introduction:**

Production of any good involves costs. For maximizing profit a producer needs to decrease its cost of production. This is only possible when a producer understands the cost concepts. Following is the discussion of Fixed cost and Variable cost.

Fixed Cost:

Fixed cost remains constant in total regardless of changes in volume up to a certain level of output. They are not affected by changes in the volume of production.

In other words the cost which does not increase with an increase in production and does not decrease with decrease in production is fixed cost. Fixed cost is to be incurred even when the production is zero. Cost incurred on purchase of Land, building, factory, machines, tools etc. are examples of Fixed Cost.

For example: figure 1 shows cost on y axis and production on x axis. When production is zero the cost is Rs. 50000. When production/output of watches increases up to 1000 and 2000, fixed cost remains constant. If we calculate per unit fixed cost so it will be Rs. 50 per unit for 1000 units (50000/1000) and decreases to Rs. 25 per unit for 2000 units of production (50000/2000).

Fixed cost consists of two concepts: Total Fixed Cost and Average Fixed Cost In the above example Rs. 50000 is Total Fixed Cost while for production of 1000 units Average Fixed Cost is Rs. 50 per unit (50000/1000).

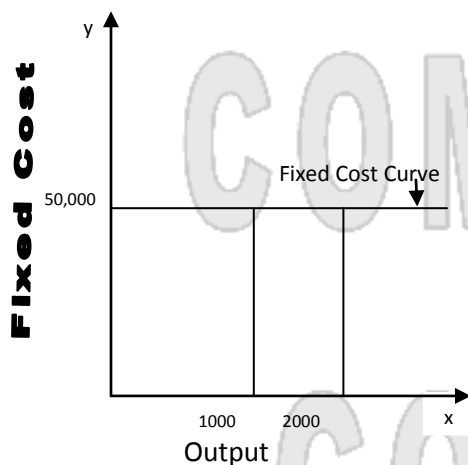
Diagrammatic Representation of Fixed and variable costs:

Figure 1.

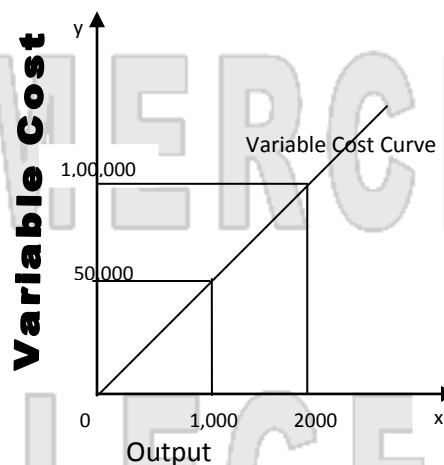


Figure 2.

Variable Cost:

The cost which increases with an increase in production, decreases with fall in production and is zero with zero production is called Variable Cost. Variable cost vary in direct proportion to changes in volume. There is a linear relationship between volume and total variable costs, but variable costs are (generally as assumption) constant per unit. Cost of raw material, energy consumption, daily wages for transportation and communication services etc. all come under variable cost.

For Example: Figure 2 shows variable cost on y axis and output or production on x axis. When production is zero unit cost of production is also zero, for the production of 1000 units of watches raw material cost is Rs. 50,000. When production is increased to 2000 units the cost of raw material also increased to Rs. 1,00,000.

The distinction between fixed and variable costs, however, is not a watertight one. Which costs is fixed and which is variable may be different in each different decision. It may be noted that the variability of cost is in relation to output and not to the time factor though in the long run, all costs tend to be variable. What is fixed at one level of output may become variable at another level of output.

Conclusion:

Fixed cost and variable costs are important short run cost concepts. For producing any product both fixed and variable costs needs to be incurred. Fixed costs does not change with change in production level while variable cost is directly related with change in production level.

Q-9 Explain the concept of Average Cost and Marginal Cost (December 2012, 6 Marks). Clarify the concept of Average Cost and Marginal Cost. Discuss the relationship between AC and MC. (December 2013, 6 Marks)

Introduction:

In short run cost analysis we have three types of Average Costs i.e. Average Fixed Cost (AFC), Average Variable Cost (AVC) and Average Total Cost (ATC or Average cost-AC) which is the cost per unit of production. Marginal cost is the cost of producing an additional unit of output.

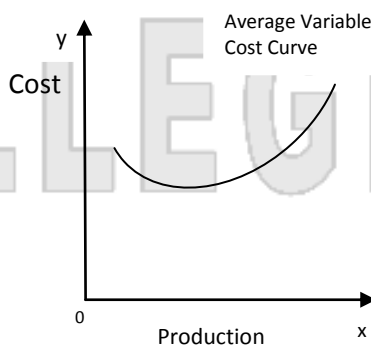
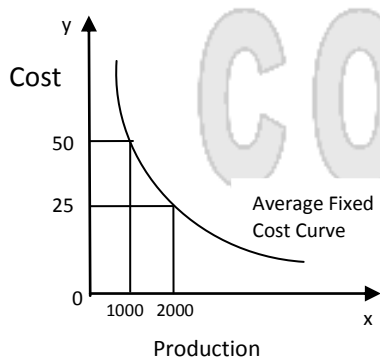
Average Cost:

Average Cost means per unit cost and can be computed simply by dividing total cost by the quantities of output produced.

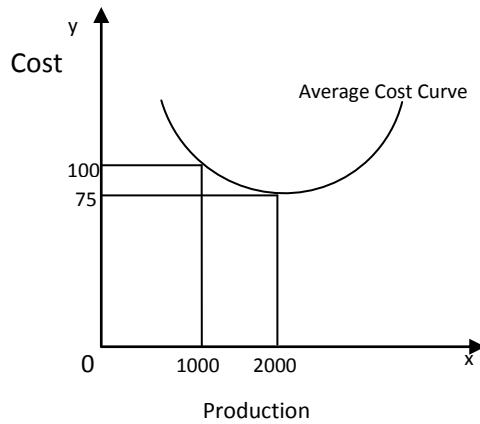
$$\text{Average Cost} = \text{Total Cost} / \text{Output (q)}$$

Under Average Cost there are three concepts:

- Average Fixed Cost:** We can get Average Fixed Cost by dividing Total Cost by number of units produced. Suppose Fixed Cost is Rs. 50,000 and production is 1000 units, Average Fixed Cost will be Rs. 50 per unit (Total Fixed Cost / Output = 50,000 / 1000). Average Fixed Cost decreases as production increases.
- Average Variable Cost:** Average Variable Cost can be calculated by dividing Total Variable Cost by output. For example, for production of 1000 units Total Variable Cost is Rs. 50,000 so Average Variable Cost will be Rs. 50 (Total Variable Cost / Output). When production increases to 2000 units Variable Cost increases to Rs. 1,00,000 so Average Variable Cost for 2000 units is Rs. 50 (1,00,000 / 2000). With an increase in production Average Variable Cost declines initially. But after a point Average Variable Cost increases with increase in production because the increased production increases complexities of business.



- Average Total Cost:** Average Total Cost can be calculated by dividing Total Cost by total output or production. In the above example total cost for producing 1000 units is Rs. 1,00,000 so Average Total Cost will be Rs. 100 (1,00,000 / 1000). Average Total Cost for production of 2000 units will be Rs. 75 (150000 / 2000). Average Total Cost decreases as production increases. But after certain point Average Cost increases. Another way of calculating Average Total Cost is to add Average Fixed Cost and Average Variable Cost (AFC + AVC).

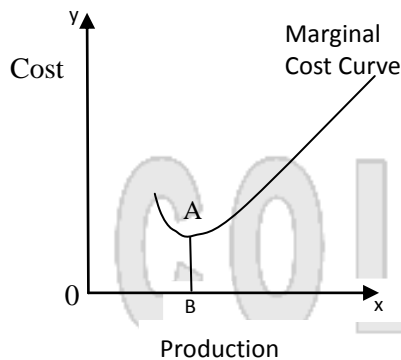


Above figure presents ‘U’ shaped Average Cost Curve. The graph shows that when production was 1000 units, Average Cost is Rs. 100 per unit. When production increases to 2000 units, Average Cost decreases to Rs. 75 per unit. In the initial stages average cost declines with increase in production due to the influence of Fixed Cost and initial decline in Average Variable Cost. But after certain point the Average Variable Cost starts increasing which leads to increase in Average Total Cost (Average Cost).

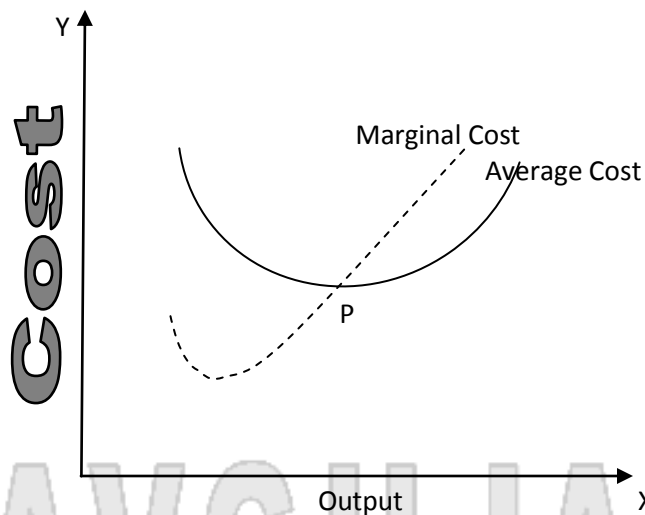
Marginal Cost:

The concept of Marginal Cost (MC) occupies an important place in economic theory. Marginal cost is addition to the total cost caused by producing one more unit of output. In other words, marginal cost is the addition to the total cost of producing ‘n’ units instead ‘n-1’ units, where n is any given number of output. Thus,

$$MC = TC_n - TC_{n-1}$$



Above figure shows the Marginal Cost Curve of a firm. Like average cost, the marginal cost also falls in the beginning, reaches its minimum (at point A) and then starts rising. The fall in the marginal cost in the beginning is because of the operation of the law of increasing returns and the rise in the marginal cost after a point is because of the operation of the law of diminishing returns.

Relationship between Average Cost and Marginal Cost:

From above figure it can be seen that as long as AC is falling, MC curve is below the AC curve and when AC starts rising, MC curve is above the AC curve. At the point P, MC is equal to AC. This is the point of minimum average cost. After this point, average cost starts rising. As noted earlier, the fall and rise in the marginal cost curve is more rapid than the average cost curve.

The relationship between average cost and marginal cost may be stated as follows:

1. With increase in production initially both average and marginal cost declines but the only difference is that marginal cost declines more rapidly than the average cost.
2. When average cost is rising, the marginal cost is higher than the average cost and therefore the marginal cost curve is above the average cost curve.
3. When it comes to falling, the marginal cost curve falls more rapidly than the average cost curve, and when it comes to rising the marginal cost curve rises more rapidly than the average cost curve.
4. When average cost is minimum, marginal cost and average cost are equal. At this point the marginal cost curve cuts the average cost curve from below at the lowest point.

Conclusion:

Average Cost includes Average Fixed Cost, Average Variable Cost and Average Total cost. Marginal cost is the cost of producing an additional unit of output. The point where AC and MC intersects each other shows the minimum Average Cost.

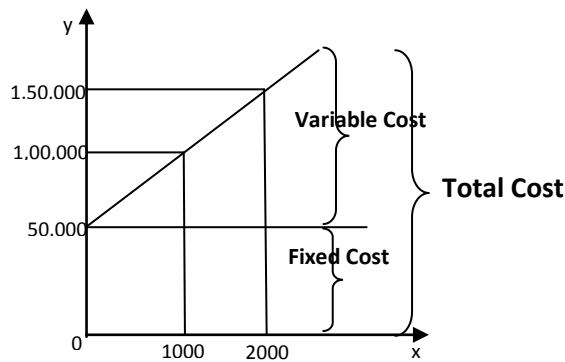
Q-10 Write a note on Total Cost.**Introduction:**

In short run Total Cost presents complete view about the cost of production of a firm. Total Cost is the combination of Total Fixed Cost and Total Variable Cost.

Total Cost:

Fixed Cost and Variable Cost incurred in the short run makes Total Cost. Total Cost (TC) is the sum total of fixed and variable costs. Thus, in the above watch example, the total cost of 1000 watches is Rs. 1,00,000 (50,000 (Variable) + 50,000 (Fixed)). When production increases to 2000 units Total Cost increases to Rs. 1,50,000 (1,00,000 (Variable) + 50,000 (Fixed)).

Total cost = Total Fixed Costs (TFC) + Total Variable Costs (TVC)



The figure above shows that total cost is the addition of fixed and variable cost. Variable Cost starts at a point above zero (at 50,000) on y axis because Fixed Cost is Rs. 50,000. When 1000 units are produced, total cost is Rs. 1,00,000 which consists Rs. 50,000 of fixed and variable cost each. When production increases to 2000 units total cost is Rs. 1,50,000 where Rs. 50,000 is fixed cost and Rs. 1,00,000 is variable cost.

Conclusion:

Total Cost can be obtained by adding TFC and TVC. Total Cost curve starts from a point above 0 on Y axis which suggests that at zero production level also there will be some Total Cost, which is actually the portion of TFC.

Q-11 Give the meaning of Opportunity Cost. OR Write a short note on Opportunity Cost (December 2012, 2013, 2014, 4 Marks)

Introduction:

Opportunity cost analysis was first used by Austrian economists as an alternative to Real cost concepts. It occupies an important place in economics.

Definition:

The opportunity cost of any commodity is the next best alternative commodity that is sacrificed or foregone.

Explanation:

Since resources of any producer are scarce, they have to make choices. In order to produce something they have to sacrifice on something that might have been produced instead.

For example, the factors of production which are used for the manufacture of a car may also be used for production of machinery or any other equipment. Now the opportunity cost of production of a car is the output of machinery or any other equipment foregone or sacrificed which could have been produced with the same amount of factors that have produced a car. Thus, the production of one commodity involves the sacrifice of the production of something else. The opportunity cost of anything is the alternative that has been foregone.

The cost of producing a thing would be determined not by the value of the thing that has not been produced, but could have been produced by the displaced factors of production. According to Prof. Benham, "The opportunity cost of anything is the next best alternative that could have been produced instead by the same factors or by an equivalent group of factors, costing the same amount of money."

Limitations of the concept of Opportunity cost

The concept of opportunity cost is suffering with the following limitations:

- 1. Not applicable to specific factors of production:** The concept is not applicable to factors of production which are specific, that is, factors which can be put to only one use. A specific factor has no alternative use, its transfer cost or opportunity cost is zero.

2. **Perfect competition and mobility:** The concept is based on the assumption of perfect competition and perfect mobility of the factors of production which is seldom found in real life. Factors of production are not so easily mobile between different occupations and regions; a number of causes hinder (અવરોધ ઉભો કરવો) their mobility. Again, many a times, workers are attracted towards a particular occupation not only by the amount of wages offered but by other considerations as well, like security of job, its social status, attitude of the employer and other superiors, preference for a particular type of work etc.
3. **Subjectivity:** The concept of opportunity cost is subjective. Different persons will have different estimates of it. When there are various alternatives, which one represents the real opportunity cost, is a question.

Conclusion: In spite of the limitations, the concept of opportunity cost has a wide application in economic theory. It helps us in explaining the relative prices of different products.

Q-12 Describe the concept of Average Revenue and Marginal Revenue. (December 2013, 4 Marks). Explain the concept of Marginal Revenue (December 2012, 4 Marks). Explain the concept of Total Revenue.

Introduction:

With cost analysis a producer also needs to do revenue analysis also because his profit depends on the excess of revenue over cost. Here we will discuss Total Revenue, Average Revenue and Marginal Revenue and the relationship between Average and Marginal Revenue.

Total Revenue;

Total revenue in economics refers to the total receipts from sales of a given quantity of goods or services. It is the total income of a business and is calculated by multiplying the quantity of goods sold by the price of the goods. By definition equals quantity (Q) sold of a good multiplied by the price (P) at which it is sold. So

$$TR = Q \times P$$

Example: Suppose price of iPhone 6 is Rs.50,000. If a mobile shop owner sells 5 iPhone then his Total Revenue will be Price multiplied by Quantity = 50,000 x 5 = Rs. 2,50,000

Average Revenue:

Average Revenue (AR) refers to the revenue per unit of output sold. It is obtained by dividing the total revenue by the number of units sold. Since Total Revenue is obtained by multiplying quantity and price the amount of the Average Revenue will be the same as price of the product. The formula for calculating AR is:

$$AR = \frac{TR}{Q} = \frac{Q \times P}{Q} = P$$

Example: If we continue the same example of iPhone then, Total Revenue for 5 iPhones is Rs. 2,50,000 so Average Revenue for the same will be $TR/Q = 2,50,000/5 = Rs. 50,000$. This is same as price. Thus we can say that Average Revenue is equal to price.

Marginal Revenue:

Marginal Revenue (MR) is the additional revenue generated from the sale of an additional unit of output. In other words, it's the change in total revenue from the sale of one more unit of a good. Following is the formula for calculating MR:

$$MR = \frac{\text{Change in Total Revenue}}{\text{Change in Quantity}} = \frac{\Delta TR}{\Delta Q}$$

Example: If the seller sells 6 iPhones and Total Revenue for 6 iPhones is Rs. 2,98,000 then Marginal Revenue will be $Rs. 2,98,000 - Rs. 2,50,000 / 6 - 5 = 48000 / 1 = Rs. 48,000$. Marginal Revenue for the 6th unit is Rs. 48,000

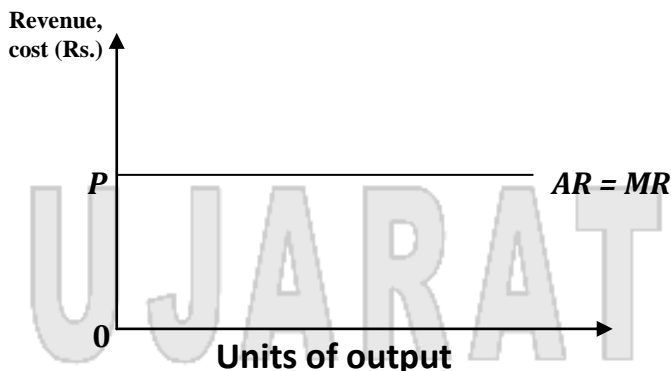
Relationship between Marginal Revenue and Average Revenue:

Under different market conditions the relationship between Marginal Revenue and Average Revenue is discussed below:

Under perfect competition: Perfect competition is a situation in which each seller is so small relative to the entire industry that he cannot affect market price by changing his output. He must accept the price decided by demand supply equilibrium in the market.

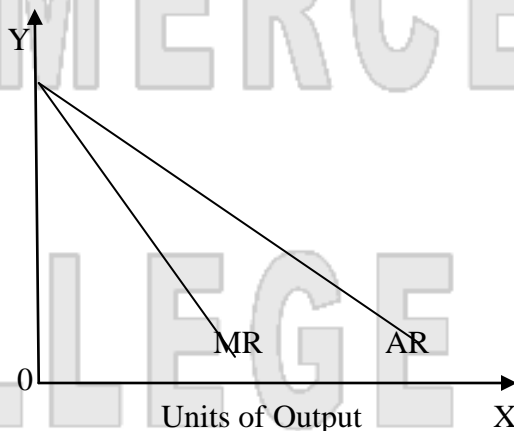
Since price generally remains the same, Average revenue and Marginal Revenue will be same under perfect competition which is shown in the following schedule and diagram.

Price	Units sold	TR	AR	MR
50	1	50	50	50
50	2	100	50	50
50	3	150	50	50
50	4	200	50	50



Under imperfect competition: Under imperfect competition a firm has to decrease price of product in order to increase sales. Thus the AR curve and MR curve of the firm are downward sloping. One thing need to be noted about AR and MR is that when both decrease, MR falls at a rate which is double than the decrease in AR. Hence, Marginal Revenue lies below the AR revenue curve. Following schedule and diagram shows the same thing:

Price	Units sold	TR	AR	MR
50	1	50	50	50
48	2	96	48	46
45	3	135	45	39
40	4	160	40	25



Here one thing should be noted that Marginal Revenue can be zero and negative but Average Revenue will never be zero or negative.

Conclusion:

Revenue analysis is one of the most important concepts in economics. It lets a producer know how price of a commodity affects his profit earning capacity. Under perfect competition AR and MR are same while under imperfect competition both are decreasing.

Q-13 Explain the relationship between Average Revenue, Marginal Revenue and Elasticity of Demand. (December 2014, 6 Marks)

Introduction:

Price elasticity has a direct relationship with Average Revenue and Marginal Revenue. This means that the more elastic a good is, the more its demand is affected by changes in supply. Following discussion shows the relationship among the three.

Meaning of the three terms:

Price Elasticity: Price elasticity means the percentage change in demand of a particular commodity due to a change in its price.

Average Revenue: AR means the revenue earned per unit of commodity sold. Average Revenue equals to price of the commodity.

Marginal Revenue: Marginal Revenue means the Revenue earned by the producer by selling an extra unit of the commodity.

Relationship among AR, MR and Elasticity of Demand:

If a firm knows any two of the three elements, then it can find out the third element with the help of the following formula:

$$e_d = \frac{AR}{AR - MR}$$

Here, e_d = elasticity of demand, AR = Average Revenue and MR = Marginal Revenue. If we use E in place of e_d , A in place of AR and M in place of MR then, the formula can be written as:

$$E = \frac{A}{A - M}$$

Example: Suppose for a producer $A = 10$ and $M = 6$ then the value of E can be calculated as follows:

$$E = \frac{A}{A - M} = \frac{10}{10 - 6} = \frac{10}{4} = 2.5$$

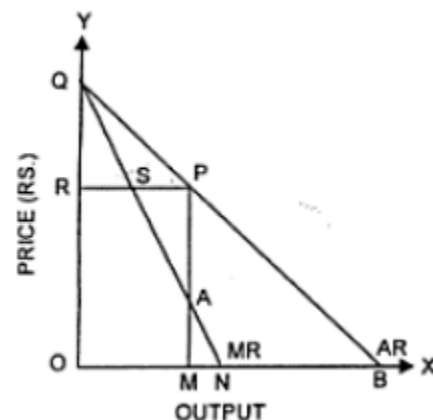
Since price elasticity is greater than 1, we can say that the commodity is price elastic.

Diagrammatic Representation:

The relationship can also be explained with the help of following diagram:

From the graph containing AR and MR we can also calculate elasticity of demand at a particular point which is called point elasticity of demand. Following is the formula for price elasticity of demand at a particular point:

$$E_d = \frac{\text{Lower segment from the point}}{\text{Upper segment from the point}}$$



It should be noted that the value of elasticity of demand is inversely related to the difference between AR and MR. the smaller the difference between them, the greater will be the value of elasticity of demand.

Conclusion:

If demand curve is downward sloping and $MR < AR$, the difference between MR and AR depends on the elasticity of demand. The greater the elasticity of demand, the smaller will be the difference.

Unit:- 4 Markets, Product Pricing and Factor Pricing

Q-1 Discuss the characteristics of Perfect Competition. (December 2012, 2013, 2014, 4 Marks)

Introduction:

Perfect competition can also be referred to as pure competition. Perfect competition is an ideal form of market structure in which there is the greatest degree of competition. Examples of such kind of market include market for grains, shares etc.

Characteristics of Perfect competition:

Following are the main features of perfect competition:

1. **A large number of sellers and buyers:** Under perfect competition there are a large number of numerous buyers and sellers. Every buyer and seller is very small so a single buyer's or seller's actions cannot have any influence on the market price. That is why firms under perfect competition are price takers.
2. **Homogeneity of products:** All the sellers are selling homogeneous or identical (એક જીવાજ) products so we can say that the products are perfect substitutes of each other. For example, shares and stock. This ensures that no seller will be in a position to charge higher prices for the product.
3. **Perfect knowledge about the market:** Every buyer and seller possesses complete knowledge about prices, quantities, costs and demand. So there is a condition of certainty under perfect competition. No seller will be in a position to take disadvantage of customer's ignorance.
4. **Uniformity of pricing:** Since products are perfect substitutes and there is perfect knowledge about the product in the market. There is uniformity in the price that has been charged from the customers. A seller will not decrease price because under perfect competition he will be able to sell whatever quantity he wishes to sell at given price. A seller will not increase the price because if he does so, nobody will purchase from him.
5. **Free entry and free exit:** There are no entry as well as exit barriers in a perfectly competitive market. In the long run inefficient firms would leave the industry and new but efficient firms would enter, so that ultimately the firms in the industry have almost similar levels of efficiency. This characteristic also ensures that every firm would only earn normal profits.
6. **Independent decision-making:** Each firm takes their individual decisions. Generally firms under perfect competition has to decide about how much quantity to produce because price is being decided by the market forces. Decisions of a firm neither affects market nor other firms.
7. **No government intervention:** It is believed that market conditions are perfect and no disturbances will arise in market so under perfect competition government plays no role.
8. **No Advertisement or Transportation Costs:** It is assumed that there is no cost for carrying goods from one location to another. This ensures the uniformity of price in the market of a commodity. A firm do not have to incur advertisement or selling costs because whatever is produced will get sold in the market.

Conclusion:

Modern markets are competitive markets, all the firms face competition from national and international firms. So in today's world except for some commodities, perfect competition is non-existent. But in order to evaluate other competitive conditions we have to know about perfect competition.

Q-2 Discuss the characteristics of Monopoly.**Introduction:**

The word monopoly is made up of ‘mono’ means one and ‘poly’ means seller. Thus, monopoly means a market where there is only one seller.

Characteristics of Monopoly:

Following are the main features of Monopoly:

1. **One firm:** Only one firm sells the commodity having no rivals or direct competitors. Here industry and firm are the same.
2. **Absence of close substitutes:** Indirect competition may exist in the form of existence of substitutes, and the monopolist’s product competing with all other goods and services in the general struggle for the consumer’s rupee. But close substitutes are believed to be non-existent. No other seller can enter the market, for whatever reasons – legal, technical or economic.
3. **Price Maker:** Monopolist is a price-maker. He tries to take the best of whatever demand and cost conditions exist without the fear of new firms entering to compete away his profits. The elasticity of demand for the product determines the level up to which the monopolist can raise the price, while cost conditions determine the level down to which the monopolist can lower the price.
4. **Both firm and industry:** A monopolist being only one firm providing goods is same as industry for the same product. Demand and supply of that firm by itself becomes demand and supply of the industry.
5. **Entry barriers:** Monopoly can only exist when there are strong barriers to the entry of rivals. The monopolist can maintain his position as the sole producer or seller of a product only if the rival firms are prohibited from entering his line of production. The barriers which prevent the entry of rival firms may be either economic or institutional or artificial in nature. But strong barriers to entry is essential condition for monopoly.

Conclusion:

A monopoly firm is the only seller in the market which can either control price or demand in the market. In the long run a monopoly earns large amount of profit.

Q-3 Describe the characteristics of Monopolistic Competition. (December 2013, 2014; 6 Marks)**Introduction:**

Monopolistic competition refers to a situation where there are many sellers of a differentiated product. There is competition which is keen, though not perfect, between many firms making very similar products, which are close but not perfect substitutes.

Characteristics of Monopolistic Competition:

Following are the main characteristics of a monopolistically competitive situation

1. **Many number of sellers:** The number of sellers is “many and small enough”. They are many in number and no seller is big enough to influence the market price which is determined by industry demand and supply. Each seller pursues an independent price-output policy.
2. **Product differentiation:** There are many firms producing particular product, but each firm introduces its product as different from others. The basis for this differentiation may take the form of quality difference, advertisement, patent rights, trade marks etc. The differentiation makes the product of different firms heterogeneous; but these products are inherently similar. These are close substitutes of one another, resulting in high cross-elasticity of demand.
3. **Price Differentiation:** Through repeated advertisement and publicity companies try to create an impression in the minds of consumers that its product is superior to that of its rival firms.

This differentiation can be real or imaginary but it gives producers a chance to charge different price than its competitors. Thus, there will be different prices for basically same product under monopolistic competition.

4. **Free entry and exit:** In monopolistic competition there are many small firms each producing a close substitute. In the long run, therefore, there cannot be any restrictions on entry or exit of the firm.
5. **Higher elasticity of demand:** Due to differentiated product, each individual firm possess some, but not complete, monopoly power and therefore its demand curve is more elastic than that of a monopoly firm. This means that a small decrease in the price of the product may lead to a large increase in the demand of the product, assuming the prices of other firms remaining the same.
6. **Advertisement expenditure:** In order to differentiate product of the firm from other firms every firm has to incur high advertisement costs. So selling costs are a major part of the cost of any company under monopolistic competition.

Conclusion:

Monopolistic competition is at midway from perfect competition and monopoly. A firm under perfect competition can charge a higher price than a firm under perfect competition but its price will be less than a firm enjoying monopoly.

Q-4 Describe different types of Monopoly. (December 2014, 6 Marks)

Introduction:

The term monopoly is derived from Greek words 'mono' which means single and 'poly' which means seller. So, monopoly is a market structure, where there only a single seller producing a product having no close substitute.

Types of Monopoly:

Following are the different types of Monopoly:

1. **Perfect Monopoly:** It is also called as absolute monopoly. In this case, there is only a single seller of product having no close substitute; not even remote one. There is absolutely zero level of competition. Such monopoly is practically very rare. Bill Gates created perfect monopoly in US for MS Word.
2. **Imperfect Monopoly:** It is also called as relative monopoly or simple or limited monopoly. In this market, a product may have a substitute. So, there is fear of competition to some extent e.g. BSNL was enjoying monopoly in landline services but with the entry of cellphone service providers like idea, AirTel, Vodafone etc. BSNL's monopoly is threatened.
3. **Private Monopoly:** When production is owned, controlled and managed by the individual, or private body or private organization, it is called private monopoly. e.g. Tata, Reliance, Bajaj, etc. groups in India. Such type of monopoly is profit oriented.
4. **Public Monopoly:** When production is owned, controlled and managed by government, it is called public monopoly. It is welfare and service oriented. So, it is also called as 'Welfare Monopoly' e.g. Railways, Defense, etc.
5. **Simple Monopoly:** Simple monopoly firm charges a uniform price or single price to all the customers. He operates in a single market.
6. **Discriminating Monopoly:** Such a monopoly firm charges different price to different customers for the same product. It prevails in more than one market. E.g. Torrent power charges different prices from household users and industrial users of electricity.
7. **Legal Monopoly:** When monopoly exists on account of trade-marks, patents, copy rights, statutory regulation of government etc., it is called legal monopoly. Music industry is an example of legal monopoly.

8. **Natural Monopoly:** It emerges as a result of natural advantages like good location, abundant mineral resources, etc. e.g. Gulf countries are having monopoly in crude oil exploration activities because of plenty of natural oil resources.
9. **Joint Monopoly:** A number of business firms acquire monopoly position through amalgamation, cartels, syndicates, etc, it becomes joint monopoly. e.g. Actually, pizza making firm and burger making firm are competitors of each other in fast food industry. But when they combine their business, that leads to reduction in competition. So they can enjoy monopoly power in market.

Conclusion:

Monopolies can be of different types like perfect or imperfect monopoly, simple or discriminating monopoly, public or private monopoly, legal monopoly, natural monopoly and technological monopoly

Q-5 Write a short note on control of Monopoly (December 2012; 4 Marks)

Introduction:

Due to their control over prices, monopolies charge higher prices. If monopolies are not controlled, they will exploit customers. Thus, for greater good of society, there is a need to control monopolies.

Measures to control Monopoly:

Following are the measures through monopoly power of a firm can be controlled:

1. **Suppression of unfair practices:** This measure aims at controlling various types of unfair practices which monopoly firms usually adopt for driving out the competitors. Such devices for example, includes destructive dumping, cut-throat competition, price-cutting etc. Government may prohibit such practices by laying down that once prices are reduced, they could not be raised again. But the main limitation of this method is that this would also prevent the genuine producers to reduce the price on an experimental basis to secure new customers. Besides, it is not so easy to define an unfair practice.
2. **Control of prices and profits:** Government can regulate by deciding ceiling of prices and profits. Government may fix the maximum prices which can be charged. It can also put limit to the maximum rate of profit. But there are certain difficulties with this method. Firstly, in the case of price fixation, a different maximum price will have to be fixed for every different type of quality of the monopolized product. Secondly, all the prices will have to be constantly revised with changes in the methods of production and changes in customer's taste and preferences. Third, it is not so easy to determine a level of price which is reasonable for consumers and fair for producers.
3. **Regulation of monopolies through taxation:** Government can also regulate monopolies through taxes and subsidies. It can levy a tax per unit of output on the monopoly firm or it can impose a lump sum tax. A steeply progressive tax on the profits of a monopolist will be an effective step towards reducing income inequalities. Besides, the state (government) may also impose a penal tax on those monopoly firms which do not attain the optimum size and deliberately restrict the output and keep the productive capacity underutilized or idle.
4. **Encouragement of competition:** Another important measure is to encourage competition in the market. The state should create conditions which may encourage the new firms to enter the industry where such entry is deliberately restricted by a monopoly firm. The competing firms should be given all facilities so as to enable them effectively to face competition. For example, firms which can compete with the monopoly firm may be given subsidies and tax concession.
5. **Anti-monopoly legislation:** Government can make laws to control monopolies whenever it feels that some firm is exploiting the society. In India also government enacted MRTP (Monopolies and Restrictive Trade Practices) Act. The act came into force from 1st June,

1970. The act aims to prevent concentration of economic power, provide for control of monopolies, and protect consumer interest.

6. **Public ownership of monopolies:** Rather than regulating a natural monopoly that is run by a private firm, the government can run the monopoly itself. Mostly the public utility services like road, railways, electricity, water supply etc. are owned and run by central and state governments.

Conclusion:

Monopolies, if uncontrolled can lead to wastage of resources and exploitation of consumer. In order to control a monopoly government can resort to any one or more of the measures discussed above.

Q-6 What is price discrimination? When is it profitable? (December 2012, 2014; 6 Marks)

Introduction:

A monopolist enjoys the privilege (અભિ) of charging different prices to different types of customers for the same good or service. This advantage of a monopolist is known as price discrimination.

Definition:

In the words of Joan Robinson: “The act of selling the same article, produced under single control at different prices to different buyers is known as price discrimination.”

Prof. Stigler defines price discrimination as, “the sales of technically same products at prices which are not proportional to marginal costs.”

Conditions under which price discrimination will be possible:

For price discrimination to exist the following conditions must be satisfied:

1. **Monopoly and Imperfect competition:** Price discrimination is possible under monopoly and imperfect competition, that is, the price discriminating firm must be a part of imperfect competition. Price discrimination is not possible under conditions of perfect competition because under perfect competition a large number of producers produce identical products, charges identical prices and customers have perfect knowledge about the market. So if any firm charges a slightly higher price, it will lose all its customers.
2. **Two or more markets:** There should be at least two or more than two markets or groups of buyers for the monopoly product or service. If there is only one market, price discrimination would not be possible. It means that price discrimination is only possible when a seller can split total demand for product in different markets. For example, an airline makes different groups of buyers like economy class passengers and business class passengers and charges different prices.
3. **Restriction of transfer or resale of goods from high priced market to low priced market:** This happens when the markets are split upon the basis of wealth. For example, a rich man will not like to become poor in order to enjoy the benefits of paying lower fees to the doctor. Similarly, if rich people do not buy technologically advanced products at high price and wait for prices to go down, price discrimination would not be possible. So there should be no possibility of transferring a unit of commodity from high priced market to the low-priced market.
4. **Ignorance and laziness of the buyers:** When buyers are not aware about the price and availability of products they will purchase commodities at higher prices. Sometimes consumers are aware of the fact that the same product costs less in other market, if they do not go to purchase the product in cheaper market due to laziness or lack of time, price discrimination becomes possible.
5. **When price differentials are too small or negligible:** When price differential in two markets is very small, buyers do not pay much attention.

6. **When consumers feel that higher price means high quality:** Many a times buyers know that they are paying higher price for a product but they are ready to pay high price for the same product if they believe that the goods are of better quality.
7. **Long distances:** Discrimination often occurs when the markets are separated by long distances or tariff barriers so that it becomes very costly to transfer goods from a cheaper market to be resold in the dearer market. For example apples are cheaply available in Kashmir and Himachal Pradesh, but it will be very costly to go there for 5-10 kilogram of apples.

Conclusion:

Price discrimination is possible under the circumstances of imperfect competition. Due to the imperfections of market many situations arise when price discrimination becomes possible.

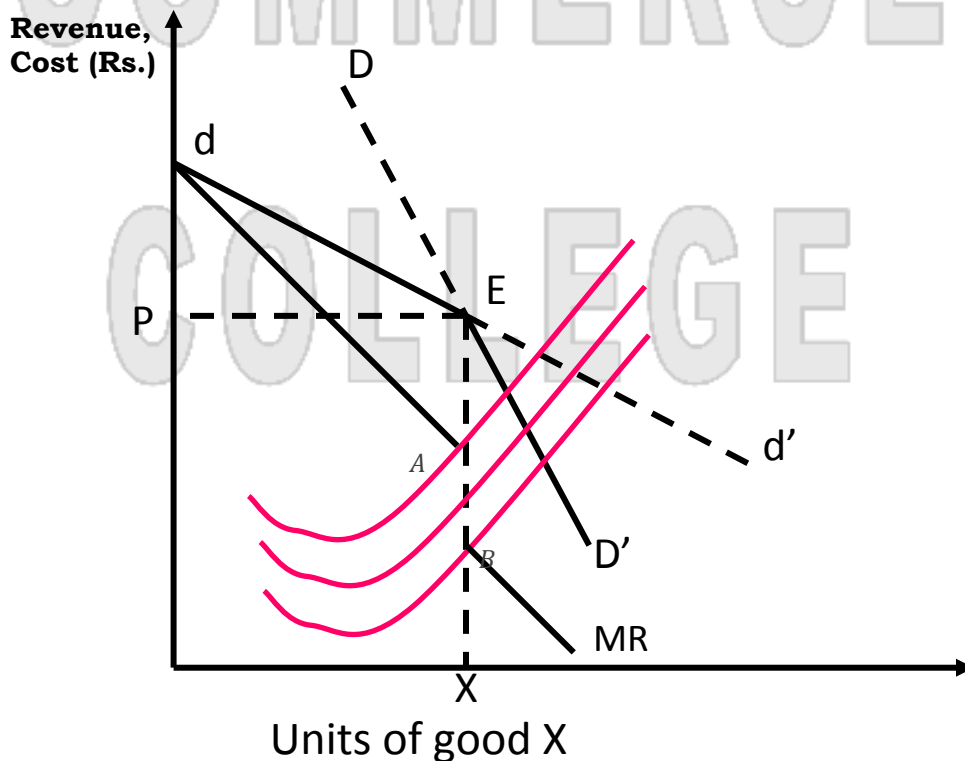
Q-7 Write a short note on kinked demand curve. (December 2012, 2013; 4 Marks)

Introduction:

The kinked demand curve was first used by Paul M Sweezy to explain price rigidity. The assumption behind the theory of kinked demand is that each oligopolist will act and react in a way that keeps conditions tolerable for all members of the industry.

Kinked Demand Curve:

Under oligopoly if one firm is selling at a price lower than of its competitors, these competitors will be compelled to reduce their prices to match this firm’s price. So by reducing price the firm does not gain, while if the firm increases the price it will lose its customers to its rivals. The oligopoly firm probably realizes that it is better to accommodate its rivals rather than start a price war. Consequently, firms in oligopoly do not raise their prices due to the possibility of losing customers to rivals who do not raise their prices. Not do the firms cut prices because they fear a price war. So prices in oligopoly tends to be sticky.



The most significant aspect of the solution of an oligopoly situation is the presence of kink in the demand curve of the firm, which indicates stickiness of prices. The kink shows that price reduction by a firm is followed by its rivals but price increase is not. Therefore, the firm will not like to move away from the kink.

In the diagram equilibrium is defined by the point at the kink (E), because at any point to the left of the kink MC is below MR, while to the right of the kink MC is higher than MR. Thus, total profit is maximized at the point of kink. However, the equilibrium is not necessarily defined by the intersection of the MC and MR curves. In general, MC passes somewhere through the discontinuous section AB of the MR curves. So long as MC passes through the segment AB, the firm maximizes its profit by producing OX units of output and selling at OP price. This indicates that there is range within which costs may change without affecting the equilibrium price and output. Thus, the kink can explain why price and output do not change despite changes in costs within the range AB. Note that, greater the difference between elasticities of the upper and lower parts of the kinked demand curve, wider is the discontinuity in the MR curve; and hence, wider the range of cost conditions compatible with the equilibrium price OP and output OX. It is only when the costs rise in general and affect all firms equally that the rise in costs will induce an increase in price.

Conclusion:

Under oligopoly, a firm's decisions depends on the decisions taken by other firms. The market conditions are uncertain and equilibrium price has been established after long term adjustments and it is not profitable to increase or decrease the price so under oligopoly, price becomes rigid which is shown by the kinked demand curve.

Q-8 Write a short note on dumping. (December 2013, 4 Marks)

Introduction:

Price discrimination means charging different prices for the same product in different markets and different consumers. Dumping is also a kind of price discrimination.

Meaning and Definition of Dumping:

Dumping is an international price discrimination in which an exporter firm sells a portion of its output in a foreign market at a very low price and the remaining output at a high price in the home market.

Haberler defines dumping as: "The sale of goods abroad at a price which is lower than the selling price of the same goods at the same time and in the same circumstances at home, taking account of differences in transport costs"

Objectives of Dumping:

The main objectives of dumping are as follows:

1. To Find a Place in the Foreign Market:

A monopolist resorts to dumping in order to find a place or to continue himself in the foreign market. Due to perfect competition in the foreign market he lowers the price of his commodity in comparison to the other competitors so that the demand for his commodity may increase.

2. To Sell Surplus Commodity:

When there is excessive production of a monopolist's commodity and he is not able to sell in the domestic market, he wants to sell the surplus at a very low price in the foreign market.

3. Expansion of Industry:

A monopolist also resorts to dumping for the expansion of his industry. When he expands it, he receives both internal and external economies which lead to the application of the law of increasing returns. Consequently, the cost of production of his commodity is reduced and by selling more quantity of his commodity at a lower price in the foreign market, he earns larger profit.

4. New Trade Relations:

The monopolist practices dumping in order to develop new trade relations abroad. For this, he sells his commodity at a low price in the foreign market, thereby establishing new market

relations with those countries. As a result, the monopolist increases his production, lowers his costs and earns more profit.

Equilibrium under dumping:

The concept of dumping can be explained with the help of Figure-16:

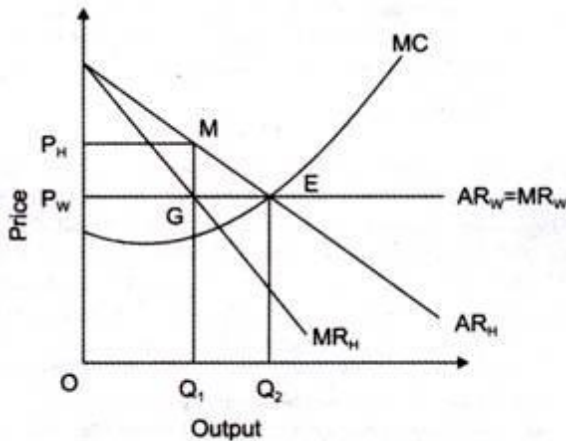


Figure-16: Equilibrium under Dumping

In Figure-16,

AR_H = Average revenue in home market

MR_H = marginal revenue in home market

$AR_W = MR_W$ = Foreign market demand curve

P_H = Price in home market (monopoly price)

P_W = Price in world market (competitive price)

In Figure-16, an assumption is taken that there are two markets that is domestic market (home market) and foreign market (world market) faced by an organization. In domestic market, the organization enjoys monopoly, whereas in foreign market, the organization faces perfect competition. Monopolist is in equilibrium when profits are maximum that is

when $MR=MC$.

In Figure-16, the equilibrium is achieved at point E, with quantity as OQ_2 , out of which OQ_1 is sold in home market at P_H price and Q_1Q_2 is sold at price P_W in world market. The price charged in world market is lower than the price charged in the home market.

Conclusion:

According to World Trade Organization, dumping should be condemned, if it is harming an established industry in a particular market. Thus, every country has an anti-dumping policy, which levies the duties that must be paid by organizations; if they engage in dumping. Anti-dumping duties act as measures that help in reducing the impact of dumping on domestic producers.

Q-9 Explain the concept of Duopoly (December 2012, 4 Marks)

Introduction:

Duopoly is a limiting case of oligopoly, in the sense that it has all the characteristics of oligopoly except the number of sellers which are only two in duopoly as against a few in oligopoly. In fact, duopoly models have been used by economists as simplified models to understand the Oligopolistic behavior.

Meaning:

Duopoly is a special type of oligopoly market structure that contains only two firms, no more, no less. Duopoly is an ideal model for analyzing oligopoly behavior. With more than one firm, duopoly captures the essence of oligopoly, especially interdependent behavior, while keeping the analysis as simple as possible.

Pepsi and Coca-cola represent the real life example of duopoly.

Features:

Following are the main features of Duopoly:

1. **Two firms:** In duopoly market there are only two firms. They produce homogeneous and indistinguishable goods. The firms are very large and economically powerful.
2. **Interdependence:** Each firm's decisions affect market position of the other firm so the decisions taken by the firms are interdependent. For one firm's actions there will be counter action from the other firm.

3. **Entry barriers:** Because of economic or legal reasons entry of new firms is difficult in the market.
4. **Non-price competition:** Under duopoly equilibrium price is attained after many adjustments. Over the period of time duopoly firms understand that if they engage in price wars, no firm will be benefited, so they try to avoid changing price of their products.
5. Collusive behavior is prohibited. Firms cannot act together to form a cartel.
6. There exists one market for the produced goods.

Conclusion:

Duopoly market conditions are a special type of oligopoly. Duopoly offers simple explanation about the behavior of firms under oligopoly market.

Q-10 Write a short note on Collusive Oligopoly. (December 2013, 4 Marks)**Introduction:**

In order to avoid uncertainty arising out of interdependence and to avoid price wars and cut throat competition, firms working under oligopolistic conditions often enter into agreement regarding a uniform price-output policy to be pursued by them. When the firms enter into such collusive agreements formally or secretly, collusive oligopoly prevails.

Meaning:

Collusive oligopoly refers to a situation where in the firms in a particular industry decide to come together as a single unit for the purpose of maximizing their joint profits and to negotiate themselves regarding their market share. The former is known as the 'joint profit maximization cartel' and the latter as 'market sharing cartel'.

Price-output under perfect cartel:

Perfect cartel is an extreme form of perfect collusion oligopoly where in the firms producing homogeneous product from a centralized agency. The individual firms surrender their price-output decision to this agency which determines output quotas for its members, the price to be charged and the distribution of industry profit.

Advantages of such type of collusion is that it will stop price wars among the competing firms and maximize their profits. But there are some factors which work against such collusion. These factors are as follows:

1. It is difficult to make an accurate estimate of the market demand. Each firm may claim that its own demand is more elastic than the market demand and this will make the estimation of market price inaccurate by the cartel.
2. Likewise, the estimation of market marginal cost may be inaccurate because of the supply of wrong data about their marginal cost by the individual firms.
3. It may be possible that some of the firms may resort to secret price cuts and these cuts may be difficult to detect. For example, providing better credit facilities, delivery and other related services free to the customers.
4. The larger the number of firms in a cartel, it becomes costlier to arrive at and maintain collective agreements. Such agreements may break down in the event of an increase in the number of firms because of distrust, threatening and bargaining resorted to by them.
5. If demand conditions are unstable, it will result in differences among oligopoly firms as to their demand projections. This may prove to be potential area of conflict among them.
6. If the oligopoly price is too high, possibility of entry of new firms and the desire to have a good public image by charging a fair price are some other factors which prevent a cartel to pursue exclusively the aim of joint profit maximization. Fear of government control also sometimes prevents firms forming cartels.

Conclusion:

Many a times firms competing under oligopoly forms cartels to end price-wars and earn maximum profits. This cartel is known as strategic collusion. Many a times these collusions are not successful because of numerous reasons.

Q-11 Write a short note on Price leadership. (December 2012, 4 Marks)**Introduction:**

A company has price leadership when it sets the price of products in its industry and other companies, often much smaller than the leader, all follow suit. This usually happens when the products are not highly differentiated and there is enough demand for each of the competitors to remain profitable after the price change. Economists have identified three types of price leadership.

Models of price leadership:

There are three models of price leadership. They are:

- i) Low cost price leadership
- ii) Dominant firm price leadership
- iii) Barometric price leadership.

1. **The low cost price leadership:** In this model of oligopoly pricing, the firm having lower costs than other firms sets a price which other firms accept and charge, though they do not maximize their profits at that price.
2. **Dominant firm price leadership:** In this model, the dominant firm sets the price which is profit maximizing for it. It allows the small firms to sell all they wish at that price. The small firms are merely price takers and sell that quantity for which their marginal cost equals the price. In this model, it is assumed that the market demand is known to the dominant firm. The dominant firm's output is often as large as all the firms together. The dominant firm is in a position to eliminate its small rivals and establish its monopoly, but it may create legal problems.
3. **Barometric price leadership:** In this model, all firms agree to follow the price changes made by a firm which has a good knowledge of the market conditions and thus it can forecast future market trends better than other firms.

Thus, the firm chosen as a leader is a kind of barometer which reflects the changes in the market. It is not necessarily a low cost or dominant firm. It has established its reputation as a good forecaster and hence it is acceptable as a leader in the market. The followers are not required to make continuous cost and demand calculations. They can benefit by following the price policy of barometric firm.

Conclusion:

Under oligopolistic market conditions generally prices are fixed based on the prices decided by the leader or most dominant firm in the market. Other small firms will follow the same price. there are three methods viz. low cost, dominant firm and barometric price leadership which may be followed by the firms in oligopolistic market.

Q-12 Explain the concept of selling cost. (December 2014, 4 Marks)**Introduction:**

Under imperfect market structures, a firm needs to incur some amount of money on promoting their product to increase demand in the market. These advertisement expenses are referred to as selling costs.

Meaning:

Selling costs have been defined as the costs necessary to persuade a buyer to buy one product rather than another or to buy from one rather than from another seller.

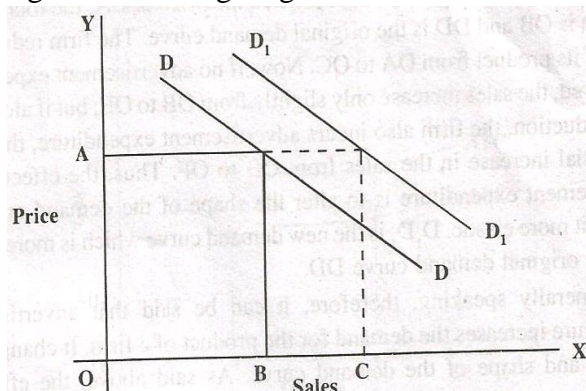
Thus, the cost incurred on advertisement, publicity, salesmanship etc. are known as selling costs.

Effects of selling costs on demand curve:

The purpose of selling cost is to increase the demand for a particular type of product by inducing the existing buyers to buy more and by attracting new buyers. This will affect the demand curve in two ways:

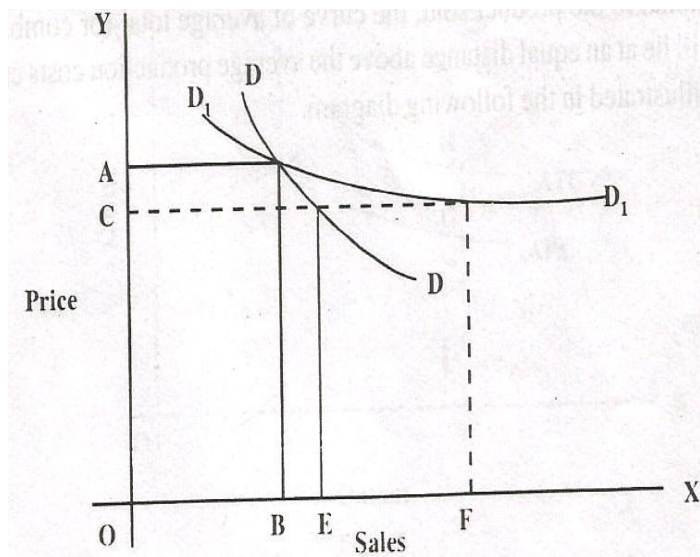
1. Selling cost or advertisement expenditure affects the position or the location of the demand curve. It leads to shift in demand curve.
2. It also affects the shape of the demand curve.

As regards the position or the location of the demand curve it can be said that the advertisement expenditure has the effect of shifting the demand curve to the right. This is because as a result of advertisement expenditure more and more people come to know about the product, its qualities, uses, price etc. This will mean an increase in demand and consequently the demand curve will go higher. Following diagram shows the same thing.



In this diagram DD is the original demand curve before the firm has advertised for its product. The sales are OB. After the product is advertised the demand increases from OB to OC. Consequently, the demand curve shifts to the right. The new demand curve is D₁D₁.

Another effect of selling cost is on the shape of the demand curve. When the firm lowers the price of its products, there is an extension of demand; but along with price reduction it also incurs selling costs or advertisement expenditure, the increase in quantity demanded will be much more. The demand curve will therefore become more elastic. Thus, price reduction along with advertisement expenditure tends to make the demand curve more elastic. Following diagram shows the same:



The diagram shows when the price is OA, the total sale of the firm is OB and DD is the original demand curve. The firm reduces the price of its product from OA to OC. Now, if no advertisement expenditure is incurred, the sales increase only slightly from OB to OE; but if along with price reduction, the firm also incurs advertisement expenditure, there is a substantial increase in the sales from OB to OF. Thus, the effect of the advertisement expenditure is to alter the shape of the demand curve by making it more elastic. D₁D₁ is the new demand curve which is more elastic than the original demand curve DD

Conclusion:

Because of selling costs the sales of a firm increases which leads to shift in demand curve while it leads to increase in demand for the product along with the price cuts, which makes demand curve more elastic.

University Papers

December 2014

- Q-1 A) Critically explain Samuelson's definition of Economics. 06
OR Critically discuss the definition of Economics given by Robbins.
- B) Give the limitations of Microeconomics and Macroeconomics. 04
OR Differentiate between normative economics and positive economics.
- C) Explain the concept of wealth and welfare. 04
OR State the distinguish between cardinal utility and ordinal utility.
- Q-2 A) Explain the meaning and types of price elasticity of demand. 06
OR Explain the law of demand with exceptions.
- B) Give the meaning of income elasticity of demand. 04
OR Explain the concept of demand function.
- C) State the difference between demand for consumer's goods and demand for producer's goods. 04
OR Explain the concept of demand for perishable goods and durable goods.
- Q-3 A) Explain the relationship between average revenue, marginal revenue and elasticity of demand. **OR** Discuss the equilibrium of a firm producer through iso-cost and iso-quant curves. 06
- B) Explain the concept of average cost and marginal cost. 04
OR Write a note on opportunity cost.
- C) State the importance of cost analysis. 04
OR Explain the concept of production possibility curve.
- Q-4 A) Describe the characteristics of monopolistic competition. 06
OR When is price discrimination profitable?
- B) Explain the concept of oligopoly. 04
OR State the characteristics of perfect competition.
- C) Describe the types of monopoly. 04
OR Explain the concept of selling cost.
- Q-5 State whether the following statements are True or False.** 14
1. Perfect competition and pure competition are the same. (False)
 2. In monopoly, firm has highest control on price. (True)
 3. Price leadership is done through formal contract and agreement. (False)
 4. Average Cost curve is horizontal to X-axis. (False)
 5. The best alternative of a factor forgone is the monetary cost of factor. (False)
 6. In the perfect competition, average revenue and marginal revenue curve are same. (True)
 7. Utility means not only joy. (True)
 8. Welfare of human is base only on stock of wealth. (False)
 9. Sale of commodity is same as supply of commodity. (False)
 10. Robbins presented economics as a positive science. (True)
 11. There is correlation between demand and price of a commodity. (True)
 12. Demand for luxurious goods is income inelastic. (False)
 13. Demand for cement is derived demand. (True)
 14. In economics, study of individual demand is important. (True)

Gujarat University
F.Y. B.Com. Semester-1
CC-101 Fundamentals of Business Economics-I
December, 2013

Time : 3 Hours]

[Max. Marks : 70

1. (a) Critically discuss the definition of Economics given by Prof. Robins. 6
OR
 Discuss the growth oriented definition of Economics given by Prof. Samuelson.
- (b) Explain the concept of utility. 4
OR
 Explain briefly the types of Goods.
- (c) Clarify the concept of Micro and Macro Economics. 4
OR
 Explain the concept of Money and Wealth.
2. (a) Describe the concept of price elasticity of demand. 6
OR
 Explain the determinants of demand in detail.
- (b) Write a short note on consumer's surplus. 4
OR
 Clarify the meaning of cross elasticity of demand.
- (c) Clarify the meaning of substitution effect. 4
OR
 Explain the concept of inferior goods.
3. (a) Explain the law of variable proportion. 6
OR
 Clarify the concept of Average Cost and Marginal Cost. Discuss the relationship between AC and MC.
- (b) Give the characteristics of Iso-quants curve. 4
OR
 Describe the concept of Average Revenue and Marginal Revenue.

- (c) Clarify the concept of Production Possibility Curve. 4
- OR**
- Give the meaning of Opportunity Cost.
4. (a) Describe the characteristics of Monopolistic Competition. 6
- OR**
- When is price discrimination possible and profitable ?
- (b) Explain the concept of Kinked Demand curves. 4
- OR**
- Give the characteristics of Perfect Competition.
- (c) Write a short note on Dumping. 4
- OR**
- Write a short note on Collusive Oligopoly.
5. Choose the appropriate answer from the option given under : 14
- (1) The kinked demand curve model is given by
- (a) Stigler (b) Baumol
(c) Chamberlin (d) Paul Sweezy
- (2) Selling cost are the costs which
- (a) adjust supply to demand (b) adjust demand to supply
(c) adjust production to demand (d) neither
- (3) Which formula is used to find out MR ?
- (a) $MR = P \times e$ (b) $MR = \frac{P}{e}$
(c) $MR = P \left(\frac{e-1}{e} \right)$ (d) $MR = P \left(\frac{e}{e-1} \right)$
- (4) In which of the following markets, a firm is a price taker ?
- (a) Monopoly (b) Oligopoly
(c) Perfect Competition (d) Monopolistic Competition
- (5) Demand curve facing a monopoly firm is
- (a) parallel to X-axis (b) downward sloping
(c) Upward sloping (d) parallel to Y-axis

Paper (December, 2013)

- (6) In which case, all costs are variable ?
(a) Medium term (b) Short run
(c) Long run (d) in all time period
- (7) In Economics, short run refers to
(a) only one factor variable (b) all factors fixed
(c) all factors variable (d) neither
- (8) The concept of consumer's surplus is given by
(a) Paul Sweezy (b) Marshall
(c) Chamberlin (d) Stigler
- (9) Giffen goods are
(a) Prestige goods (b) Capital goods
(c) Luxury goods (d) Inferior goods
- (10) The economist who presented welfare oriented definition of economics
(a) Marshall (b) Robbins
(c) Samuelson (d) Baumol
- (11) The root cause of economic problem
(a) Ends (b) Greed
(c) Means (d) Scarcity
- (12) According to the law of demand, the relation between price and demand is
(a) positive (b) inverse
(c) direct (d) neither
- (13) Production function means
(a) Relation between factor amount and output
(b) Relation between production and sales revenue
(c) Relation between production and price
(d) Relation between factor amount and marginal cost
- (14) Which of the following is not a characteristics of monopolistic competition ?
(a) Large number of sellers (b) Large number of buyers
(c) Homogenous product (d) Ease of Entry

F.Y. Fundamentals of Business Economics - 1 (Seme-1)

Gujarat University

F.Y. B.Com

Fundamentals of Business Economics - 1

SEMESTER 1

December, 2012

Time : 3 Hours]

[Max. Marks : 70

Instruction : Write answers in short and clear.

1. (a) Explain the definition of Economics given by Prof. Marshall. 6
OR
 Clarify the definition of Economics given by Prof. Samuelson.
- (b) Clarify the concept of Micro and Macro Economics. 4
OR
 Explain the types of Utility.
- (c) Explain the concept of Value and Price. 4
OR
 Explain the concept of Wealth and Welfare.
2. (a) Explain the Law of Demand. 6
OR
 Describe the concept of Cross Elasticity of demand.
- (b) Write a short note on Demand Function. 4
OR
 Give the meaning of Elasticity of Demand.
- (c) Explain the Individual Demand and Market Demand. 4
OR
 Explain the Firm Demand and Industry Demand.
3. (a) Explain the Equilibrium of firm through Isocost and Isoquant curve. 6
OR
 Explain the concept of Average Cost and Marginal Cost.
- (b) Discuss the concept of Production Possibility Curve. 4
OR
 Describe the concept of Fixed Cost and Variable Cost.
- (c) Write a short note on an Opportunity Cost. 4
OR
4. (a) Explain the concept of Marginal Revenue. 6
 Discuss the characteristics of Perfect Competition.
- (b) What is Price Discrimination ? When is it profitable ? 4
 Write a short note on control of Monopoly.
OR
- (c) Explain the concept of Duopoly. 4
 Write a short note on Kinked Demand Curve.

2

Question Paper 2012 (Guj.Uni.)

OR

Write a short note on Price Leadership.

5. Choose the appropriate answer from the option given under : 14
- (1) Which economist has given the scarcity definition of economics ?
(Prof. Robbins, Prof. Marshall, Prof. Hicks, Prof. Ricardo)
 - (2) Prof. Adam Smith has considered economics is a
(Positive Science, Science of Wealth, Science of Welfare, Science of Scarcity)
 - (3) Utility is a concept.
(Psychological, Economic, Social, Political)
 - (4) Study of firm equilibrium is economics.
(Micro, Macro, Agriculture, Industrial)
 - (5) What is the shape of demand curve ?
 - (6) Give the equation of price elasticity of demand.
 - (7) Generally demand of commodity is income elastic.
(Luxury, Primary, Durable, Light)
 - (8) Total cost ÷ Production unit =
 - (9) What is shape of marginal cost ?
(U.V. Hockey, Negative)
 - (10) Isoquant curve has slope.
(Negative, Positive, Horizontal)
 - (11) How many producer in oligopoly market ? *a few*
 - (12) How many producer in monopolistic competition ? *large*
(many, unlimited, two, one)
 - (13) In which market price discrimination is not possible ?
(Monopoly, Oligopoly, Perfect competition)
 - (14) In which market demand curve is undetermined ?
(Monopoly, Oligopoly, Monopolistic competition)