Department of forestry, Wildlife and Environmental Sciences

Course: Introductory Forest Economics **Class: B.Sc. (Forestry) I Semester**

SECTION-A

Note: First question is compulsory which carry 20 marks.

Q.1. **(a) Write the true or false**

(i) The economic activity which concerned with use of any economic goods and services for the satisfaction of our wants known as consumption.

Ans. True

(ii) Supply of land is not fixed.

Ans. False

(iii) Nominal wage is the real wage.

Ans. False

(iv) Disposable income means=Personal Income Tax

Ans. False

(v) The amount supply increases with fall in price.

Ans. False

(vi) Monopolistic competition means combination of oligopoly and perfect competition.

Ans. False

(vii) Capitalism is the economic system in which people are free to consume, produce and exchange the goods without government interference

Ans. True

(viii) Average utility= Total utility/number of units consumed by consumer

Ans. True

(ix) Free goods means supply is more than demand.

Ans. True

(x) Monopoly market means number of buyers V_s a seller

Ans. True

.**(b) Fill in the blanks**

(i) Cardinal analysis approach of utility has been given by **Marshall.**

(ii) CPI **Consumer Price Index**

(iii) The word **supply** implies the amount offered for sale at a given price.

(iv) Kinked curve is formed in **oligopoly market Competiton**.

(v) Liquidity means **money in cash**.

(c) Choose the correct answer

(i) One extra unit of commodity used by consumer known as

a. Marginal utility b. Average utility c. Total utility d. None of these

Ans. a. Marginal Utility

(ii) Economic goods are:

a. Air b. Water c. Buildings d. None of these

Ans. c. Buildings

(iii) Law of demand is

a. Quantity demand increases with the rising price
b. Quantity demand decreases with the rising price
c. Last consumption units should provide maximum satisfaction
d. All of the above

Ans. b. Quantity demand decreases with the rising price

(vi) Relatively elastic means:

a. $E_d=0$ b. $E_d=1$ c. $E_d>1$ d. $E_d<1$

Ans. c. $E_d>1$

(v) Inflation means:

a. Rises the purchasing power of money
b. Lower the purchasing power of money
c. Rising prices of goods
d. b and c

Ans. d. b and c

SECTION-B

Note: Attempt any four question which carries equal marks (10)

Q. 2. (a) What do you understand by interconnected demands? Discuss about different kinds of demand with suitable example?

Ans. When demand for a commodity depends upon the demand for another commodity then it is called interconnected demand. It may following types:

1. Joint or complementary demand: When to satisfy one want two or more than two goods are demanded together, then such a demand is called joint demand

Example: To take a snap we need camera and film, to write a letter we need pen and paper

2. Composite Demand: Composite demand refers to the demand for one commodity in order to satisfy two or more wants.

Example: Wood can be utilized to make cot, chair, table etc.

3. Direct demand: When commodity is demanded for its direct consumption it is called direct demand.

Example: Demand for water when feeling thirsty

4. Derived demand: it refers to the demand for one commodity as a result of demand for another (Another form of joint demand).

Example: demand for bricks, cement, lime, timber is derived demand for a house

5. Composite demand: Demand for substitutes is known as composite demand.

Example: Increasing price of tea shifting more consumption of coffee

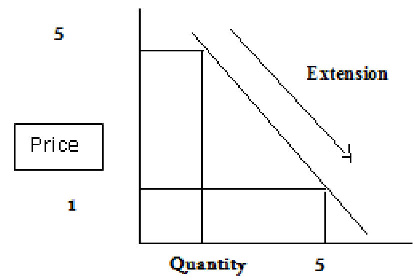
(b) What is the law of demand? Explain the with suitable example extension, contraction, increasing and decreasing of demand curve?

Ans. **Law of demand:** The inverse relationship between the price of a commodity and its quantity demanded per unit of time is referred to as the law of demand. The amount demanded increases with a fall in price and diminishes with a rise in price.

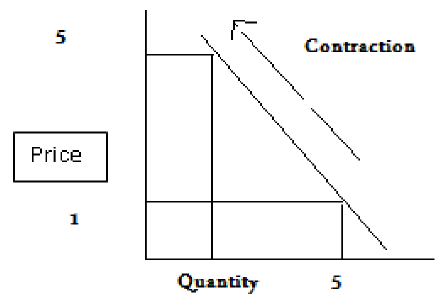
Extension and contraction of demand

Extension and contraction of demand refers to movements on the same demand curve. If with a rise in price, the demand decreases, it is called contraction of demand, if with a fall in price, the demand increases, is called an extension of demand. The Extension and contraction of demand are represented in following figure the movement.

Price (Rs)	Quantity demanded (Kg)	Description
5	1	Fall in price Extension of demand
1	5	



Price (Rs)	Quantity demanded (Kg)	Description
1	5	Rise in price contraction of demand
5	1	

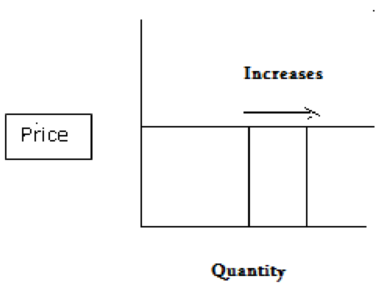


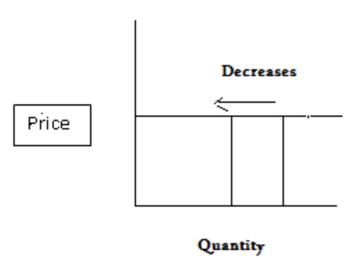
Increase and decrease in demand

Increase and decrease in demand causes shifts in the demand curve. A shift in the demand curve due to a change in some factor other than the price of the commodity is referred to as a change in demand.

Price (Rs)	Quantity demanded (Kg)	Description
3	5	Increases of demand at same price
3	1	

Price (Rs)	Quantity demanded (Kg)	Description
3	1	Rise in price contraction of demand
3	5	





Increase in demand means rise in demand in demand in response to change in determinants of demand other than the price of the product. Increase in demand refers to an rightward shift in demand curve. Decrease in demand means fall in demand in response to change in determinants of demand other than the price of commodity. A decrease in demand refers to leftward shift in the demand curve. It is exe pressed by the following figure:

Q.3. Define forest economics? Discuss about the nature, scope and assumption of economics?

Ans. Forest Economics: Forest Economics is a discipline that studies the production, distribution, and consumption of forest products and services. It characterizes the mental calculus of a decision maker, whether a private landowner or a policy maker, by focusing on the relationship between ends and scarce means (resources) that have alternative uses (Robbins 1932). In other words, forest economics is the study of choices relating to forest conservation and management.

JN Keynes written book the scope and method of economics had included the study of the following three things under scope of economics:

1. **Subject matters of economics**
2. **Nature of economics**
3. **Assumptions of economics**

Subject matters of economics: It related to the economic activity, economic system, economic policies

Economic activity: It includes consumption, production, exchange and distribution of wealth.

Consumption: The use of economic goods and services for the satisfaction of human wants.

Production: Production is that activity which is concerned with increasing the utility or value of goods and services

Exchange: Activity relating to the buying and selling of the product or factors of production is called exchange. It is always in terms of money.

Objective of economic activities:

i. Proper allocation of the resources: It concerned with micro economics
ii. Efficient use of resources: It concerned with macro economics

Economic System: Categories in three system as follows:

Capitalism: Capitalism is the economic system in which people are free to consume, produce and exchange the goods without government interference

Socialism: Socialism is the economic system in which people are free to consume, produce and exchange the goods under the government control

Mixed: Where the capitalism and socialism and mixed together in economic system.

Economic policies:

i. Monetary (involving in money matter)
ii. Fiscal: Involving financial matters
iii. Price: Involving in worth
iv. Economic planning
v. International liquidity

Nature of Economics: By nature economics having character of science and art.
Economics is science: Science derived from Latin word scire (to know). Knowing a subject means understanding it and being able to explain it causes and effects. “Science is a systematic body of knowledge concerning the relationship between cause and effect of a particular phenomenon”
Characteristics of science:

1. Observation of facts: Price and demand relation, Quantity and utility
2. Measurement: In economics also facts are measured.
3. Explanation: Law of demand: based on cause and effect
4. Verification: the final feature of science is that by applying the scientific law to real life.

Economics an Art: Art is the practical application of knowledge for achieving definite ends. Applied economics in place of term art.
Characteristics of Art:

1. Solution of the problems
2. Realistic situation
3. Practical basis of assumption
4. Verification of economic theories

Assumptions of Economics:

1. Study of human activity only
2. Study of real man
3. Study of average man
4. Study of economic study
5. Science and art
6. Economic laws

Q.4. **Write Short notes on the following: (any two)**

(i) **Keynes theory of consumption**

Ans. In economics, the consumption function is a single mathematical function used to express consumer spending. It was developed by John Maynard Keynes and detailed most famously in his book The General Theory of Employment, Interest, and Money. The function is used to calculate the amount of total consumption in an economy. It is made up of autonomous consumption that is not influenced by current income and induced consumption that is influenced by the economy's income level. This function can be written in a variety of ways, an example being $C = a + b(Y-T)$. This is probably the most simplistic form of the consumption function.

The simple consumption function is shown as the affine function:

$$C = c_0 + c_1 \, Yd$$

Where C = total consumption,
c_0 = autonomous consumption ($c_0 > 0$),
c1 is the marginal propensity to consume (ie the induced consumption) ($0 < c_1 < 1$), and
Yd = disposable income (income after government intervention – benefits, taxes and transfer payments – or $Y + (G – T)$).

Autonomous consumption represents consumption when income is zero. In estimation, this is usually assumed to be positive. The marginal propensity to consume (MPC), on the other hand measures the rate at which consumption is changing when income is changing. In a geometric fashion, the MPC is actually the slope of the consumption function.

The MPC is assumed to be positive. Thus, as income increases, consumption increases. However, Keynes mentioned that the increases (for income and consumption) are not equal. According to him, "as income increases, consumption increases but not by as much as the increase in income".

The Keynesian consumption function is also known as the absolute income hypothesis, as it only bases consumption on current income and ignores potential future income (or lack of). Criticism of this assumption lead to the development of Milton Friedman's permanent income hypothesis and Franco Modigliani's life cycle hypothesis. More recent theoretical approaches are based on behavioral economics and suggest that a number of behavioural principles can be taken as microeconomic foundations for a behaviourally-based aggregate consumption function.

(ii) Liquidity preference theory of interest

Ans. Keynes given new Idea about interest. He said that interest is purely a monetary phenomenon According to Keynes interest is the reward for parting with liquidity for a specified period. Keyens defines interest as the premium which has to be offered to induce people to hold their wealth in some form, other than hoarded money. Interest is the opportunity cost of holding wealth.

Liquidity means money in case. Liquidity preference means the desire of the public to hold cash. Money is demanded because it is the only perfectly liquid asset.

The desire to hold ready money arises out of three motives:

1. Transaction motive: The transaction motive relates to the need for the current transaction of personal and business exchanges
2. Precautionary motive: The precautionary demand for money is for holding a reserve against unforeseen and contingent liabilities. Example for sickness, accidents ect.
3. Speculative motive: The speculative motive relates to the desire of the people to hold resources in liquid form, with a view to take the advantages of market movements. Securing profit from knowing better than the market what the future will bring forth.

The amount of money held under the speculative motive depends upon the rate of interest. Bond prices and the rate of interest are inversely related to each other. Low bond prices are indicative of high interest rates and high bond prices reflect low interest rates. Let suppose that an individual wants to purchase a bond of Rs. 1000 which carries 4% interest. Now bond on this bond, he earns to the same income of Rs. 40 an investment of Rs. 800 will be sufficient. It means that bond prices decreases with an increase in the rate of interest and vice versa.

(iii) Law of marginal utility

Ans. A law of economics stating that as a person increases consumption of a product – while keeping consumption of other products constant – there is a decline in the marginal utility that person derives from consuming each additional unit of that product. This is the premise on which buffet-style restaurants operate. They entice you with "all you can eat," all the while knowing each additional plate of food provides less utility than the one before. And despite their enticement, most people will eat only until the utility they derive from additional food is slightly lower than the original.

For example, say you go to a buffet and the first plate of food you eat is very good. On a scale of ten you would give it a ten. Now your hunger has been somewhat tamed, but you get another full plate of food. Since you're not as hungry, your enjoyment rates at a seven at best. Most people would stop before their utility drops even more, but say you go back to eat a third full plate of food and your utility drops even more to a three. If you kept eating, you would eventually reach a point at which your eating makes you sick, providing dissatisfaction, or 'dis-utility'.

RS/Units	Utility of Mango (MU)	Utility of Apple (MU)	RS/Units	Name of goods	Utility
1	20	16	1	Mango	20
2	18	10	2	Mango	18
3	14	8	3	Apple	16
4	12	6	4	Mango	14
5	10	4	5	Mango	12
6	6	2	6	**Mango**	**10**
7	2	0	7	**Apple**	**10**

Q.5. "Land is free gift of nature" discuss about it? Discuss about the characteristics of land?

Ans. Land is not created by mankind but it is a gift of nature. So, it is called as natural factor of production. It is also called as original or primary factor of production. Normally, land means surface of earth. But in economics, land has a wider meaning. Take a good look at the following picture

It includes following natural resources :-

1. On the surface (e.g. soil, agricultural land, etc.)
2. Below the surface (e.g. mineral resources, rocks, ground water, etc.)
3. Above the surface (e.g. climate, rain, space monitoring, etc.)

Characteristics features of Land

1. Land is a free gift of nature: Land is a free gift of nature to mankind. It is not a man-made factor but is a natural factor.
2. Land is a primary factor of production: Though all factors are required for production, land puts foundation for production process. Starting point of production process is an acquisition of land. So, it is a primary factor.
3. Land has perfectly inelastic supply: From society's point of view, supply of land is perfectly inelastic i.e. fixed in quantity. Neither it can be increased nor decreased. Simply, you can not change size of the earth. But from individual point of view, its supply is relatively elastic.
4. Land has grad ability: Land varies from region to region on the basis of fertility. Some land are more fertile and some are not at all. So, fertility wise, grading of land is possible. So, in this way, land has grad ability.

5. Land is a passive factor: Land itself doesn't produce anything alone. It is a passive factor. It needs help of Labour, Capital, Entrepreneur, etc. Like labour and entrepreneur, it doesn't work on its own initiative. So it is a passive factor.
6. Land may have diminishing returns: Here, return means quantity of crops. By using fertility of land with the help of capital and labour continuously, returns gets diminished because of reduction in fertility.
7. Land has a derived demand: Demand for agricultural goods is a direct demand and for producing such goods, land is indirectly demanded. So, as a factor, land has a derived demand from consumer's point of view.
8. Land has no social cost: Land is a gift of nature to society. It is already in existence. Land is no created by society by putting any efforts and paying any price. So, for society, supply price of land is zero. But, because for the purchase of land or for its improvement, individual has to pay certain price, so its supply price for individual is not zero.
9. Land is a indestructible factor: Land is durable and not perishable. It has a long life. No one can destroy the land. The power of land is permanent and indestructible. Its fertility can be destroyed as well as restored by human efforts.
10. Land is perfectly immobile: Mobility means ability to move. Movement of land from one place to another is impossible. Thus, physically, land is perfectly immobile. But it has certain occupational mobility because it can be used for variety of occupations, like agricultural use or for construction of houses.
11. Land has a site or location value: Every piece of land has its certain site or location value. Such value depends upon quality of its location. Land near to sources of raw materials and other infrastructure facilities always enjoy high site value. Here accessibility of land plays an important role.
12. Land earns rent as a reward for its use: Rent is a reward for the use of land. Classical economists like Ricardo connected rent with fertility of land whereas modern economists like Marshall and Javons stated that land earns rent because of its scarcity.

Q.6. Differentiate between following: (any four)

(i) Free goods and Economic goods

Free goods	Economic goods
Free good is a good which is available without using any resources	Economic good is a good which is produced by paying for the resources
Supply is more than demand	Demand is more than supply
Example of Free good would be air	Example of Economic good would be a computer

(ii) Marginal utility and total utility

Marginal utility	Total utility
One extra unit of commodity used by consumer	The sum of total units consumed by the consumer Or Total utility is the total of marginal utility
Marginal Utility= T_n-T_{n-1}	TU x = $\sum$MU x
Marginal utility may be positive, zero and	But total utility always positive

negative.	

(iii) Monopoly and monopolistic competition

Monopoly competition	Monopolistic competition
There is only one seller of a product	There are many sellers producing highly, differentiated products.
A firm has complete control over supply and has sole right over the sole right over the sale of commodity	Large no. of firms and buyers
Restriction on the entry of new firms	Freedom of entry and exit of firm
No close substitute	Advertisement

(iv) Productivity and Utility

Productivity	Utility
The rate at which goods or services are produced especially output per unit of labour	Capacity of any good to satisfy human wants is known as utility

(v) Suppressed inflation and creeping inflation

Suppressed inflation	Creeping inflation
When government prevents price rise through price controls, rationing, etc., it is known as Suppressed Inflation. However, when government controls are removed, Suppressed inflation becomes Open Inflation. Suppressed Inflation leads to corruption, black marketing, artificial scarcity, etc.	When prices are gently rising, it is referred as Creeping Inflation. It is the mildest form of inflation and also known as a Mild Inflation or Low Inflation. According to R.P. Kent, when prices rise by not more than (upto) 3% per annum (year), it is called Creeping Inflation.

Q.7. (a) Discuss about the market structure?

Ans.

S. No.	Market Structure	No. of firm or Producer or seller	Degree of product	Firm degree of control over price	Part of economic where prevented
1.	Perfect competition	Many sellers	Homogeneous	No control	Farm command
2.	Imperfect competition	Many sellers	Differentiated product	Some	Retails
3.	Pure oligopoly	Few sellers	Homogeneous product	Some	Steel & chemicals

4.	Differentiate oligopoly	Few sellers	Differentiated product	Some	Automobile and computers
5.	Monopoly	One seller	No substitute	Controlled	Railway

(b) What is oligopoly competition? Discuss the Characteristics feature of it?

Ans. **Ans. (i) Oligopoly-** Oligopoly is the competition among the few. In greek -Oligoi means few. So a market (poly), where there are a few sellers of output is called oligopoly.

Main features of oligopoly

1. **Few sellers**- oligopoly is a market structure in which a small number of rival firms dominate the industry. It s under oligopoly that rivalry among firms takes its most direct and active form.
2. **Lack of uniformity**- Some firms may be small and others may be large. For example eight largest firms in the united states account for over 85% of the photographic equipment supplies. The market is of course dominated by the corporation.
3. **Advertisement**- Advertisement and selling costs have a strategic importance for oligopoly firms.
4. **Elements of monopoly**- Under oligopoly, there are only few firms in the market. The existence of product differentiation creates brand loyalty on the part of the consumers which is the basic source of monopoly power.
5. **Constant struggle**- Competition is of a unique type in the oligopolistic market. Competition here implies struggle of rivals against rivals.
6. **Uncertainty**- uncertainty in the behaviour of firms is a special feature of oligopoly.
7. **Interdependence**- The cross elasticity of demand for the oligopoly produce is high. Therefore the sellers are aware of their interdependence with their rivals. Each firm in the industry is presumed to recognize the fact that a change in its price.
8. **Existence of price rigidity**- In an oligopolistic market each firm sticks to its own price. If a firm tries to reduce the price the rivals will also retaliate by reducing their prices.