Unit two review questions

Part One: Distinguish between the following

1. Normal goods and inferior goods

Normal goods

- A normal good is a good that experiences an increase in its demand due to a rise in consumers' income. In other words, if there's an increase in wages, demand for normal goods increases while conversely, wage declines or layoffs lead to a reduction in demand.
- A normal good has an elastic relationship between income and demand for the good. In other words, changes in demand and income are positively decorrelated or move in the same direction.
- A normal good is a good that experiences an increase in its demand due to a rise in consumers' income.
- Normal goods have a positive correlation between income and demand.
- Examples of normal goods include food staples, clothing, and household Notesale.co. appliances.

Inferior goods

- Inferior goods are the opposite of porma goods. Inferior goods are goods that see their lemand drop as opnoumers' incomes rise. In other words, as costly alternative than inferior goods. However, the term "inferior" doesn't refer to quality, but rather, affordability.
- In economics, the demand for inferior goods decreases as income increases or the economy improves. When this happens, consumers will be more willing to spend on more costly substitutes. Some of the reasons behind this shift may include quality or a change to a consumer's socio-economic status.
- Conversely, demand for inferior goods increases when incomes fall or the **economy contracts.** When this happens, inferior goods become a more affordable substitute for a more expensive good. Most often than not, there is not a quality difference.
- Complementary goods and Substitute goods

Complementary goods

- Complementary good a product that is used or consumed jointly with another product. Such a good usually has more value when paired with its complement than when used separately.
- In other words, an object that is paired with another item; they are usually purchased together rather than separately.

A **complementary good** is a good whose use is related to the use of an associated or paired good. Two goods (A and B) are complementary if using more of good A requires the use of more of good B.

Substitute goods

- Substitute good: product that satisfies the same basic want as another product. Substitute goods may be used in place of one another.
- In other words, an object that can take the place of another item, which are essentially similar in use.
- **Substitute goods** or **substitutes** are at least two products that could be used for the same purpose by the same consumers.
- Substitute goods are identical, similar, or comparable to another product, in the eves of the consumer.
- Substitute goods can either fully or partly satisfy the same needs of the customers. Therefore, they can replace one another, so the consumer believes.
- Pepsi-Cola is a substitute good for Coca-Cola, and vice-versa. When the price of Coca-Cola goes up, demand for Pepsi-Cola will subsequently rise (if Pepsi

- 3. Market demand and Individual demand Market demand Market demand period Market demand period Maket demand provides ne total quantity demanded by all consumers. In other words, it represents the aggregate of all individual demands. There are two basic types of market demand: **primary and selective**.
 - Primary demand is the total demand for all of the brands that represent a given product or service, such as all phones or all high-end watches.
 - Selective demand is the demand for one particular brand of product or service, such as the iPhone or a Michele watch.
 - Market demand is an important economic marker because it reflects the competitiveness of a marketplace, a consumer's willingness to buy certain products and the ability of a company to leverage itself in a competitive landscape.
 - If market demand is low, it signals to a company that they should terminate • a product or service, or restructure it so that it is more appealing to consumers.

Individual demand

The individual demand is the demand of one individual or firm. It represents the quantity of a good that a single consumer would buy at a specific price point at a specific point in time.

satisfying. It's used in <u>indifference theory</u> to analyze consumer behavior. The marginal rate of substitution is calculated between two goods placed on an <u>indifference curve</u>, displaying a frontier of utility for each combination of "good X" and "good Y."

- 2. What is the basic difference between cardinal and ordinal approach of Utility?
 - **Cardinal utility** is the utility wherein the satisfaction derived by the consumers from the consumption of good or service can be measured numerically. **Ordinal utility** states that the satisfaction which a consumer derives from the consumption of product or service cannot be measured numerically.
 - **Cardinal utility** measures the utility objectively, whereas there is a subjective measurement of **ordinal utility**.
 - **Cardinal utility** is less realistic, as quantitative measurement of utility is not possible. On the other end, the **ordinal utility** is more realistic as it relies on qualitative measurement.
 - **Cardinal utility**, is based on marginal utility analysis. As against this, the concept of **ordinal utility** is based on indifference curve analysis.
 - The **cardinal utility** is measured in terms of utile, i.e. units of utility. On the contrary, the **ordinal utility** is measured in terms of ranking of references of a commodity when compared to each other.
 - **Cardinal utility** approach propounded by Apar Harshall and his followers. Conversely, **ordinal utility** approach powered by Hicks and Allen.
- 3. Elaborate the justifications for the negative slope and convexity of indifference curve.
 - It is negative because the consumption level of one commodity can be measured by reducing the conservition level of the other commodity.
 - It are convex to the origin. The convexity of indifference curve implies that the two commodities are imparted substitution for each other and that marginal rate of substitution between the two goods decrease as a consumer moves along an indifference curve.
- 4. Standard indifference curves cannot intersect each other. Why?
 - Because if there are two goods say arrange and cooldrink holding arrange constant on indifference curve involving a grater amount of soft drink must give a grater satisfaction. Similarity, holding soft drink constant an indifference curve involving a grater amount of orange must give grater satisfaction.
 - These statement from the fact that goods and service both provide consumer benefits and reflects the more is better principle.
- 5. Does the change in income affect the slope of the budget line? Explain.
 - Does not affect, because the slop of the budget line (ratio of the two price) does not change when income rise or falls.

2. Given utility function U= where Px = 12 Birr, Birr, Py = 4 Birr and the income of the consumer is, M= 240 Birr.

A. Find the utility maximizing combinations of X and Y.

$$P_{xx} + P_{yy} = 240$$

$$12x + 4y = 240 \dots equation (1)$$

$$\frac{MuX}{MuY} \frac{Px}{Py} = MuX = \frac{du}{dx} x$$

$$x^{0.5} x y^{0.5} = d x^{0.5} y^{0.5} = 0.5 x^{0.5-1} y^{0.5} = 0.5 x^{0.5} x^{-1} y^{0.5} = \frac{0.5x^{0.5} y^{0.5}}{y}$$

$$\frac{MuX}{MuY} = \frac{\frac{0.5x^{0.5} y^{0.5}}{x}}{\frac{0.5x^{0.5} y^{0.5}}{y}} = \frac{0.5x^{0.5} y^{0.5}}{x} X \frac{Y}{0.5x^{0.5} y^{0.5}} = \frac{Y}{x}$$

$$MUR_{xy} = \frac{Mux}{Muy} = \frac{Px}{Py} = \frac{Y}{x} = \frac{12}{4}$$

$$Y = 3x \dots Equation (2)$$
Substitute
$$12x + 4y = 240$$

$$Y = 3x$$

$$= 12x + 4y = 240$$

$$\frac{8y}{8} = \frac{240}{8}$$

$$Y = 30, X = 0$$

$$\frac{8y}{3} = \frac{3x}{3} p agg$$

$$x = 10$$

B. Calculate marginal rate of substitution of X for Y (MRSx,Y) at equilibrium and interpret your result.

MURSxy =
$$\frac{Y}{X} = \frac{30}{10} = 3$$

MURSxy = $\frac{Px}{Py} = \frac{12}{4} = 3$ at equilibrium

3. Suppose a particular consumer has 8 birrs to be spent on two goods, A and B. The unit price of good A is 2 birr and the unit price of B is 1 birr. The marginal utility (MU) she gets from consumption of the goods is given below.

Quantity	MuA	MuB
1	36	30
2	24	22
3	20	16
4	18	12
5	16	10
6	10	4