Select Language

Term: 1st Term

Week: 2

Class: Senior Secondary School

Duration: 40 minutes of 2 periods each

Date: January 2027

Subject: Economics

Topic: The Production Possibility Curve (PPC)

SPECIFIC OBJECTIVES: At the end of the lesson, the students should be able to

1. **Explain the meaning of production possibility curve**
2. **Plot the PPC from a given data**
3. **Identify the different points on the graph**

INSTRUCTIONAL TECHNIQUES: Identification, explanation, questions and answers, demonstration, videos from source

INSTRUCTIONAL MATERIALS: Videos, loud speaker, textbook, pictures

INSTRUCTIONAL PROCEDURES

PERIOD 1-2

PRESENTATION	TEACHER'S ACTIVITY
STEP 1 INTRODUCTION	The teacher reviews the previous lesson on elasticity of supply
STEP 2 EXPLANATION	He explains the meaning of production possibility curve.
STEP 3 DEMONSTRATION	He states the guidelines for plotting a production possibility cur actually plots some

STEP 4 NOTE TAKING	The teacher writes a summarized note on the board

NOTE

PRODUCTION POSSIBILITY CURVE (PPC)

This is a curve or graph which shows the various combinations of two goods that can be produced with available resources, given the level of technology.

This is also known as Production Possibility Boundary (PPB)) or Production Transformation Curve (PTC)

Production Possibilities Frontier – the line on a production possibilities graph that shows the maximum possible output

Efficiency – using the available resources in such a way as to maximize the production of goods and services

Underutilization – using fewer resources than an economy is capable of using

Cost – to an economist, the alternative that is given up because of a decision – the opportunity cost

Sunk Cost – a cost that cannot be avoided because they have already been incurred eg. Eating a bad meal you paid for, even when you are already full

Growth – an economy wants to move the production possibilities curve to the right. An outward shift on the entire PPC curve. It can do so only with growth.

Reasons for Growth

1. Accumulation of capital through capital formation
2. Technological advancement. New inventions or better methods that allow an economy to produce more output using the same amount of resources
3. Increase in population – immigrants, birth rates increase
4. Available land or improvements to land,
5. Improvement in resource quality. Better education and training that makes a worker more productive.

6. Increase in resource quantity. Finding new raw materials, growing the labour force through population growth or migration or building more capital goods like factories, and power tools

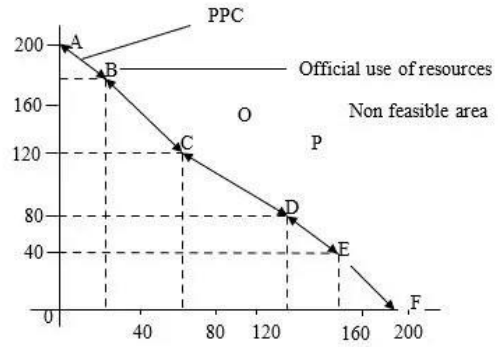
The idea behind the production possibility curve is that in order to produce a particular commodity, the production of another commodity has to be sacrificed. There must be a trade-off.

For example, the production possibility curves for the production of cattle and motor vehicles in South Africa.

Production Possibility Table for The Production of Cattle and Motor vehicles by South Africa

Possible combination	head of cattle
A	200
B	170
C	100
D	80
E	40
F	0

The table shows the alternatives open to South Africa to substitute the production of cattle for vehicle on a monthly basis, assuming a given state of technology and a given amount of resources.



Production Possibility curve for the Production of cattle and motor vehicle in South Africa.

INTERPRETATION OR POINTS TO NOTE FROM THE GRAPH

1. Points A to F on the graph indicate efficient use of resources
2. At points O and P (outside the curve), production is not feasible. Production of these points is not feasible due to the limited resources and technology.
3. At point K and L (inside the curve), production is feasible. It represents where resources are not efficiently utilized.
4. The downward slope of the PPC indicate that there is an opportunity cost of producing more of one type of commodity and less of the other due to limited resources and technical know how

RELATIONSHIP BETWEEN PPC AND OPPORTUNITY COST

The negative slope of the PPC illustrates that there is an opportunity cost involved in the production of more of a commodity as less of the other will be produced due to limited resources and technical know-how. This cost is measured in terms of the quantity of the other commodity forgone or sacrificed

EVALUATION: 1. Define Production Possibility Cost

2. Jackie land is known for the production of Cupcakes and Robots. The following is a PPT for Jackie land:

	A	B	C	D	E	F
Cupcakes:	**0**	**2**	**6**	**10**	**14**	**18**
Robots:	**30**	**28**	**26**	**22**	**18**	**14**

a. **Draw and label (each axis and each point). Put cupcakes on the Y**
b. **Indicate on the graph with Point K where production is inefficient**
c. **Indicate on graph with Point L where production is unattainable**

Note that points A – J indicate efficient uses of resources.

CLASSWORK: As in evaluation

CONCLUSION: The teacher commends the students positively

Term: 1st Term

Week: 2

Class: Senior Secondary School 2

Age: 16 years

Duration: 40 minutes of 2 periods each

Date: January 2027

Subject: Economics

Topic:- Cost Concepts I

SPECIFIC OBJECTIVES: At the end of the lesson, pupils should be able to

1. **Explain the meaning of cost**
2. **State and explain the types of costs**
3. **Distinguish between short-run and long-run costs**
4. **Discuss the economist's and the accountant's views on cost**

INSTRUCTIONAL TECHNIQUES: Identification, explanation, questions and answers, demonstration, videos from source

INSTRUCTIONAL MATERIALS: Videos, loud speaker, textbook, pictures

INSTRUCTIONAL PROCEDURES

PERIOD 1-2

PRESENTATION	TEACHER'S ACTIVITY
STEP 1 INTRODUCTION	The teacher reviews the previous lesson on production possibili
STEP 2 EXPLANATION	He explains the meaning and types of cost. He also distinguishe the short run and long run costs
STEP 3 DEMONSTRATION	He discusses the economist's cost and the accountant's cost
STEP 4 NOTE TAKING	The teacher writes a summarized note on the board

NOTE

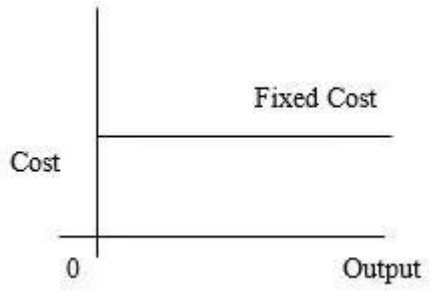
BASIC COST CONCEPT

Cost can be defined as the prices that a producer pays for the factors of production used in the process of producing goods and services.

TYPES OF COSTS

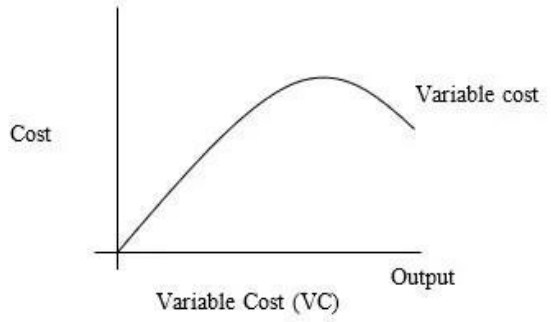
1) Fixed Cost (FC): This is a cost which remains the same no matter the level of that output that is produced. Examples are; cost of machinery, motor vehicles, cost on land etc.

FC = Total Cost – Variable or TFC = AFC x Q



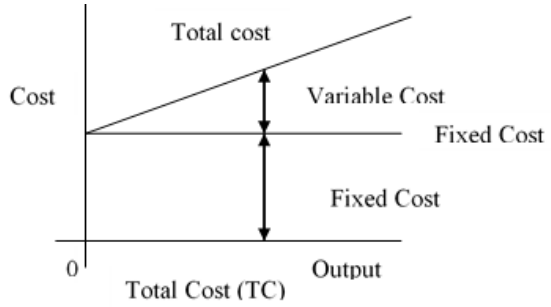
2) Variable Cost (VC): This refers to the cost which changes or varies as the output changes. Such costs are also referred to as direct or prime costs e.g expenditure on raw materials, labour wages or salaries, cost of fuel etc.

VC = TC – FC



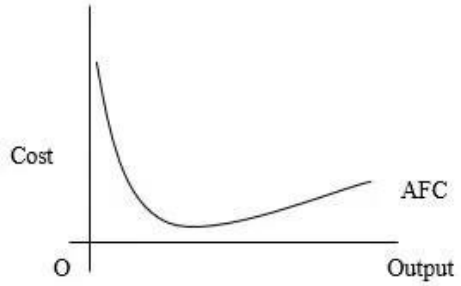
3) Total Cost (TC)Variable Cost Output : This is the minimum cost that must be incurred by the producer to produce a certain quantity of a commodity. It is total fixed cost plus total variable cost.

Total cost = Fixed cost + variable cost or Average cost x Quantity.



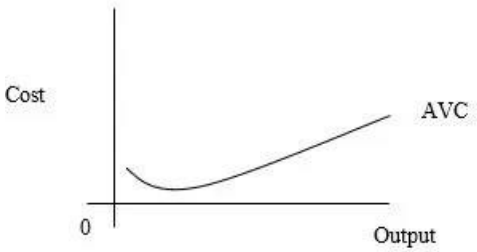
4) Average Fixed Cost (AFC): This is the Fixed Cost per unit of output

$$AFC = \frac{Total\ Fixed\ Cost}{Quantity}$$



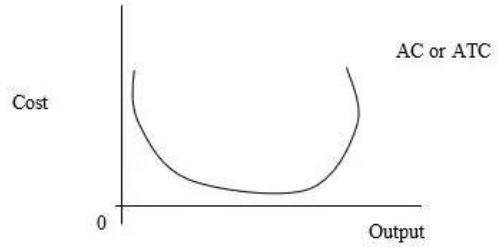
5) Average Variable Cost: This is variable cost per unit of output

$$\text{AVC} = \frac{TVC}{TQ} = ATC - AFC$$



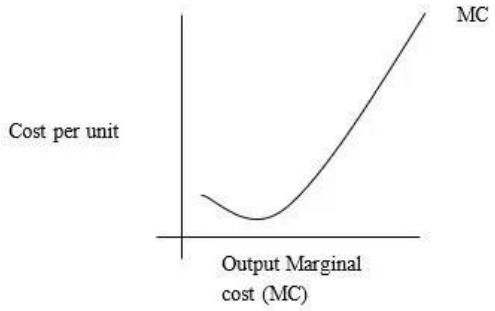
6) Average Total Cost (ATC): This is the total cost per unit of output.

AC =(Total cost (TC))/(Total output (tq)) or ATC=AFC+AVC



7) Marginal Cost (MC): This is a change in total cost as a result of an additional unit of output produced.

$$Marginal\ cost = \frac{change\ in\ TC}{Change\ in\ Output} = \frac{\Delta TC}{\Delta Q}$$



SHORT-RUN AND LONG-RUN COSTS PERIOD

Short-run: This is a period of time when one or more inputs (factor of production) like machinery, buildings, land, equipment are fixed in quantity.

Long-run: This is a period of time when all inputs can be varied freely. No room for any input to be fixed and entrepreneur can vary the inputs or factors such as machinery, buildings, land, equipment etc.

ECONOMISTS COST AND ACCOUNTANTS COST

Economists view in terms of opportunity cost is an expression of cost in term of forgone alternative. It is the sacrifice an individual makes for a commodity he did noy buy over the one he bought. Also known as the real cost, true cost or opportunity cost.

While an Accountant views cost in terms of actual amount of money spent in order to have a commodity. It is the explicit value of a commodity. Also known as the money cost.

For instance, if Mr. Clark has N3,000 and he desires to buy a television that cost N2,000 and a handset cost N2,500. If he eventually buys a handset, therefore, economists cost of a handset is a television that he did not buy while the accountant cost is N2,500 in which is the money cost of a handset.

EXPLICIT AND IMPLICIT COST

Explicit cost refers to the expenditure on the materials used in the process of production. It includes expenditure on raw materials, transportation, salaries, advertisement etc.

Implicit cost refers to the cost of resources owned by the entrepreneur which are used in the course of production i.e self-employed and self-owned resources

EVALUATION: 1. Define cost

2. **List and explain the types of cost**
3. **Distinguish between short-run and long-run cost**
4. **Citing an example, differentiate between and economist's cost and an accountant's cost**
5. **COST SCHEDULE OF A FIRM**

Output	(TFC)	(TVC)	(TC)	(AVC)
0	100	1	C	0
1	100	40	D	40
2	100	A	164	G

3	**100**	**B**	**180**	**H**
4	**100**	**88**	**188**	**22**
5	**100**	**96**	**196**	**19.5**

CLASSWORK: As in evaluation

CONCLUSION: The teacher commends the students positively

SS 2 ECONOMICS LESSON NOTE ABOUT LABOUR MARKET TOPIC:

LABOUR MARKET. LABOUR: Labour is often defined as the physical or mental effort exerted by human beings in the production of goods and services. In neoclassical economics, labor is a broader concept that incorporates all human activity that adds value to a product or service. This includes not only physical and mental effort but also the use of tools, machines, and other equipment. It also surrounds the time spent on planning, organizing, and supervising production. In certain economic models, labor is assumed to be a homogeneous input. This means that all workers are assumed to have the same skills, abilities, and productivity. However, labor is not homogeneous in real life. Workers differ in their skills, abilities, experience, and motivation. These differences can lead to different amounts of output per hour of work, even when all other inputs are the same.

MARKET: Market, a means by which the exchange of goods and services takes place as a result of buyers and sellers being in contact with one another, either directly or through mediating agents or institutions. Markets in the most literal and immediate sense are places in which things are bought and sold. In the modern industrial system, however, the market is not a place; it has expanded to include the whole geographical area in which sellers compete with each other for customers. Alfred Marshall, whose Principles of Economics (first published in 1890) was for long an authority for English-speaking economists, based his definition of the market on that of the French economist A. Cournot: Economists understand by the term Market, not any particular market place in which things are bought and sold, but the whole of any region in which buyers and sellers are in such free intercourse with one another that the prices of the same goods tend to equality easily and quickly.

LABOUR MARKET: The term labor market refers to the supply of and demand for labor services. It is a market where workers compete for jobs and employers compete for workers. The supply and demand for labor are determined by a series of factors, including the actual amount of work to be done, the number of workers available or able to do the work, and the level of wages that workers are willing to accept.

THE CONCEPT OF LABOUR FORCE: The labor force, or workforce, is the total number of people within a given population who are currently employed plus the number of people who are unemployed and actively seeking work. They are normally found between the age of bracket of 18 to 65 years. To be a member of the labour force one must be of working age (18- 65 years), be able bodied i.e not handicapped either mentally or physically and must be willing to work

PERSONS THAT ARE NOT MEMBERS OF THE LABOUR FORCE: A person is outside the labour force, according to the International Labour Organisation definition, if he or she is not part of the labour force, meaning he or she is neither employed nor unemployed. The set of people outside the labour is also called the "inactive population" and can include pre-school children, school children, students, pensioners, the elderly (above 65 years) and housewives or-men, for example, provided that they are not working at all and not available or looking for work either; some of these may be of working-age.

FACTORS AFFECTING THE SIZE OF LABOUR FORCE:

•Age: The size of the labor force is influenced by the age distribution of the population. As the population ages, the labor force may shrink, as more people retire and fewer people enter the workforce.

•Sex: The labor force can also be influenced by gender differences, as certain industries or occupations may be more male- or female-dominated.

•Occupation: The size of the labor force can be affected by the types of jobs available in a particular area or industry. For example, if there are more job opportunities in a certain field, it may attract more people to that industry and increase the size of the labor force.

•Education: Education levels can also impact the size of the labor force, as people with higher levels of education may be more likely to enter certain professions or industries.

•Migration: The rate of migration can also affect the size of labour force. If the rate at which the working population leaves a country is higher than the rate at which people come in, it will lead to reduction in supply of labour.

*Total population size of a country. the more the population of a country, the more the size of labour force.

*T role of women in the society. In communities where women are not allowed to take active jobs, the size of labour force will be low.

*Official school leaving age. In countries where children leave school early, the immediately join the labour force and that increases the size but in areas where children leave school late, it limits the size of labour force.

*Official age of retirement. When workers retire early, it reduces the size of labour force and vice versa.

*Religion and culture of the people

EFFICIENCY OF LABOUR: Efficiency of labour can be defined as the ability of labour to increase output without increasing the level of input or the quantity of labour. Efficiency of labour refers to the ability of an employee to complete one task given within the time and without any wastage of resources. Efficiency of labour implies the quality and quantity of goods and services which can be produced within a given time and under certain conditions. In other words, productive capacity of a worker is termed as efficiency of labour.

FACTORS AFFECTING EFFICIENCY OF LABOUR: The efficiency of labour depends on the following factors:

(i) Climatic factors: Climatic differences also affect the efficiency of labour. Working under extreme climatic conditions is always more difficult than working in the temperature zones.
(ii) Geographical differences: Locational differences also sometimes play a significant role. A person who has born and brought up in the plains, will find it hard to display much efficiency if he is forced to work at high altitudes hilly areas.
(iii) Mental abilities: Mental abilities are also important. General training helps a worked in assimilating new skills and technical knowledge. Moral qualities also play a role in this connection. A worker is likely to be more efficient, the greater is his sense of discipline, self-respect, self-sufficiency, punctuality etc.
(iv) Favourable working conditions: A healthy and conducive work environment increases the level of efficiency. The facilities enjoyed by the worker determine labour efficiency to a significant extent. Employer-employee relations also plays an important part of the work environment. An employer, therefore, can contribute to labour efficiency by building a cordial relationship with his workers.
(v) Promotion: Frequent promotions of workers in any organisation can lead to increase in efficiency of labour.
(vi) Education and training- An educated worker understands their job better than those who are not educated. Therefore, his or her output will be good.
(vii) Personal qualities- Qualities like mental fitness, intelligence, soberness, resourcefulness, being a team player, and responsible are building blocks of efficient labor.
(viii) The health condition of the worker. A worker is able to put his best if his health condition is okay, than when he is not sound.

MOBILITY OF LABOUR: Labor or worker mobility is the geographical and occupational movement of workers. Labor mobility refers to the ease with which laborers are able to move around within an economy and between different economies. It is an important factor in the study of economics because it looks at how labor, one of the major factors of production, affects growth and production.

TYPES OF MOBILITY OF LABOUR: There are two primary types of labor mobility: geographic and occupational.

•Geographic mobility refers to a worker's ability to work in a particular physical location, for example, a worker moving from the Nigeria to United State illustrates the concept of geographic mobility. Geographical mobility of labor refers to the movement of workers from one location to another in search of employment or better job opportunities. The following are the factors affecting geographical mobility of labor. while

•Occupational mobility refers to a worker's ability to change job types. For example, an automobile mechanic who changes jobs to become an airline pilot, on the other hand, reflects the concept of occupational mobility.

FACTORS AFFECTING GEOGRAPHICAL MOBILITY OF LABOUR:
•Geographical mobility of labor refers to the movement of workers from one location to another in search of employment or better job opportunities. The following are the factors affecting geographical mobility of labor:

•Economic factors: Economic factors such as unemployment, job opportunities, and income levels can influence the decision of workers to move from one place to another. A high unemployment rate in a particular area and the availability of better job opportunities in other regions can lead to an increase in geographical mobility of labor.

•Social factors: Social factors such as family ties, social networks, and the presence of cultural and ethnic communities can also impact the geographical mobility of labor. Workers may be more likely to move to a place where they have friends, family members, or belong to a similar cultural or ethnic group.

•Political factors: Political factors such as government policies, political stability, and the level of civil liberties can also affect the geographical mobility of labor. Workers may be reluctant to move to regions that are politically unstable or where their basic rights and freedoms are not protected.

•Physical factors: Physical factors such as climate, geography, and natural disasters can also play a role in the geographical mobility of labor. For example, workers may be more likely to move to regions with a milder climate or regions that are less prone to natural disasters.

•Technological factors: Technological advances can also impact the geographical mobility of labor. For instance, the widespread availability of telecommunication and internet technologies can allow workers to carry out their work from remote locations, reducing the need for geographical mobility.

FACTORS AFFECTING OCCUPATIONAL MOBILITY OF LABOUR:

The facilities for training and retraining, wage differentials, job security, future prospects, fringe benefits etc

OBSTACLES OF MOBILITY OF LABOUR: There are many factors which hinder mobility of labour. They are differences in climate, religion, habits, language, customs, tastes, etc. The other factors are illiteracy, ignorance, indebtedness, attachment to property and place, poverty, economic backwardness, lack of means of transport and communications and employment opportunities, etc.

ASSIGNMENT 1. Explain efficiency of labour force.

2. Enumerate the factors affecting the size of labour force particularly the population characteristics.

Term: 1st Term

Week: 4

Class: Senior Secondary School 2

Duration: 40 minutes of 2 periods each

Date: January 2027

Subject: Economics

Topic: Concept of Utility

SPECIFIC OBJECTIVES: At the end of the lesson, learners should be able to

1. **Define utility**
2. **State and explain the types of utility**
3. **State the law of diminishing marginal utility**

INSTRUCTIONAL TECHNIQUES: Identification, explanation, questions and answers, demonstration, videos from source

INSTRUCTIONAL MATERIALS: Videos, loud speaker, textbook, pictures

INSTRUCTIONAL PROCEDURES

PERIOD 1-2

PRESENTATION	TEACHER'S ACTIVITY
STEP 1 INTRODUCTION	The teacher reviews the previous lesson on unemployment
STEP 2 EXPLANATION	She explains the meaning of utility. She also states and explains of utility
STEP 3 DEMONSTRATION	She states the law of diminishing marginal utility
STEP 4 NOTE TAKING	The teacher writes a summarized note on the board

NOTE

CONCEPT OF UTILITY

Utility refers to the amount of satisfaction derived from the consumption of a commodity at a particular time.

TYPES OF UTILITY

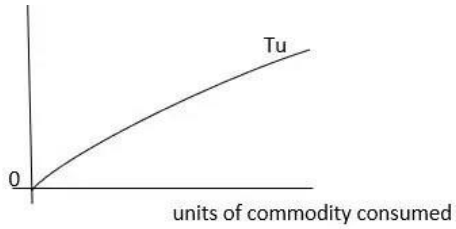
1. Form Utility: This is the transformation of commodity from the consumption of a commodity at a particular time.

2. Place Utility: Place utility involves the changing of location of a commodity from one geographical area where it has little utility to another area where its utility is higher.

3. Time Utility: This is the ability of a commodity or service to satisfy a consumer's wants at a particular time.

CONCEPTS OF TOTAL UTILITY, MARGINAL UTILITY AND AVERAGE UTILITY

1. Total Utility: this refers to the total amount of satisfaction derived from all the units of a commodity consumed at a particular time.



Total Utility Curve

2. Marginal Utility: This refers to the additional satisfaction derived by consuming an extra unit of a commodity.

$$MU = \frac{\text{change in Tu}}{change\ in\ Quantity} = \frac{\Delta Tu}{\Delta Q} = \frac{Tu_1 - Tu_0}{Q_1 - Q_0}$$

Where ΔQ = Change in total utility

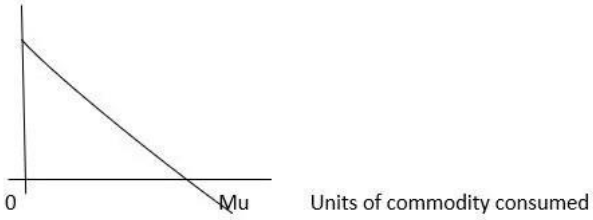
ΔQ = Change in quantity

Tu_1 = New level of total utility

Tu_0 = Old Level of total utility

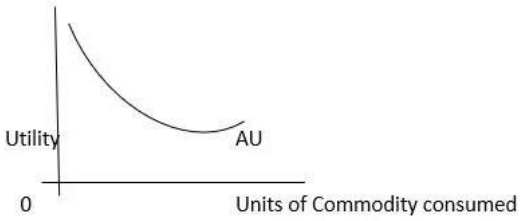
Q_1 = New level of quantity

Q_1 = Old level of quantity



3. Average Utility: this is the amount of satisfaction derived by a consumer per unit of a commodity consumed.

$$= \frac{\text{Total in Utility}}{change\ in\ Quantity}$$



Relationship between total utility and marginal utility schedule of Total, marginal and average utility.

Relationship between total utility and marginal utility schedule of Total, marginal and average utility.

Quantity of Goods consumed	Total Utility	Marginal Utility
0	0	–
1	15	15
2	25	10
3	32	7
4	38	6
5	41	3

6	43	2
7	43	0
8	42	-1

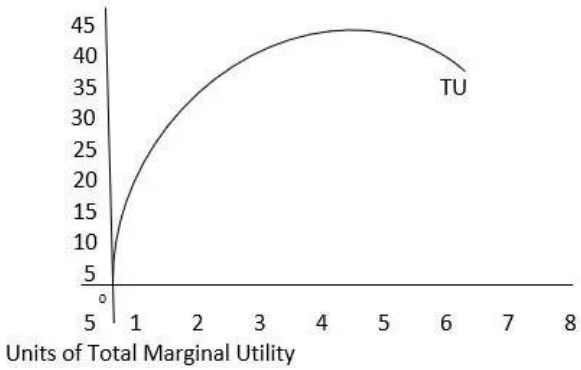
Both marginal utility and total utility are related

When a consumer increases consumption of a commodity total utility rises to a maximum and then decline. On the other hand, the marginal utility of any commodity decreases as more is consumed. When total utility increases to a maximum point then marginal utility is zero.

As total utility continued to decrease, marginal utility becomes negative. The table shows the relationship between both concepts.

At quantity seven, total utility is zero. When total utility decrease at 8th unit, MU is negative.

The fact that total utility increases at a decreasing rate is shown by the decreasing steps of marginal utility curve



SCHEDULE OF TOTAL AND MARGINAL UTILITY

The Law of Diminishing Marginal Utility
The law of diminishing marginal utility states that the amount of satisfaction (or utility) an individual derives as his consumption of that commodity increases as a result of continuous consumption of the same commodity.

Utility Maximization
Utility Maximization for one product

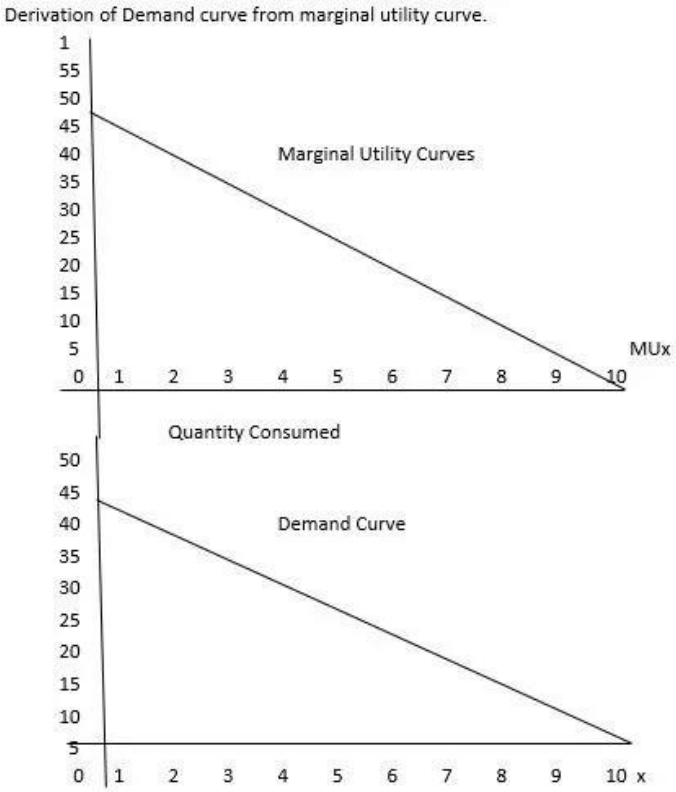
For one product, a consumer maximizes utility when the marginal utility of that commodity equals the price of the commodity. This is represented mathematically thus, MUx = Px

Utility maximization of many products
In case of many products the consumer will be at equilibrium where there is equality of the ratio of the marginal utility of the individual commodity to their twice.

The utility maximization concept requires that the ration of marginal utilities of the last units of the commodities should be equal to the ration of prices.
(MUx)/Px = (MUy)/Py = MUz/Pz

Derivation of demand curve from utility theory
Derivation of demand is based on the law of diminishing marginal utility. Marginal utility is key concept underlying demand.
It slopes downward from left to right like the demand curve.
A consumer's demand for any product is a function of marginal utility. Marginal utility slopes that is more of a commodity is consumed, the satisfaction derived declines.

Derivation of Demand curve from marginal utility curve



EVALUATION: 1. Define utility

2. **State and explain the types of utility**
3. **State the law of diminishing marginal utility**

CLASSWORK: As in evaluation

CONCLUSION: The teacher commends the students positively

Select Language

Term: 1st Term

Week: 7

Class: Senior Secondary School 2

Duration: 40 minutes of 2 periods each

Date: January 2027

Subject: Economics

Topic: Concept of Utility

SPECIFIC OBJECTIVES: At the end of the lesson, pupils should be able to

1. **Define utility**
2. **State and explain the types of utility**
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INSTRUCTIONAL TECHNIQUES: Identification, explanation, questions and answers, demonstration, videos from source

INSTRUCTIONAL MATERIALS: Videos, loud speaker, textbook, pictures

INSTRUCTIONAL PROCEDURES

PERIOD 1-2

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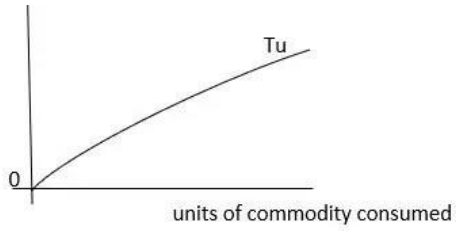
CONCEPTS OF TOTAL UTILITY, MARGINAL UTILITY AND AVERAGE UTILITY

1. Total Utility: this refers to the total amount of satisfaction derived from all the units of a commodity consumed at a particular time.



Total Utility Curve

2. Marginal Utility: This refers to the additional satisfaction derived by consuming an extra unit of a commodity.

$$MU = \frac{\text{change in Tu}}{change\ in\ Quantity} = \frac{\Delta Tu}{\Delta Q} = \frac{Tu_1 - Tu_0}{Q_1 - Q_0}$$

Where ΔQ = Change in total utility

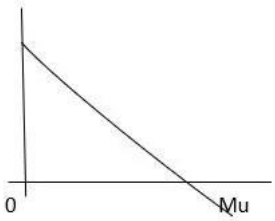
ΔQ = Change in quantity

Tu_1 = New level of total utility

Tu_0 = Old Level of total utility

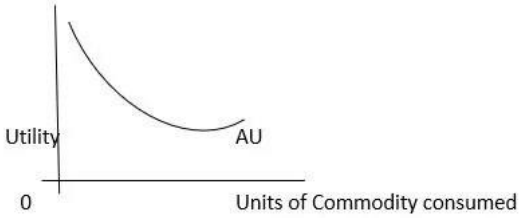
Q_1 = New level of quantity

Q_1 = Old level of quantity



3. Average Utility: this is the amount of satisfaction derived by a consumer per unit of a commodity consumed.

$$= \frac{\text{Total in Utility}}{change\ in\ Quantity}$$



Relationship between total utility and marginal utility schedule of Total, marginal and average utility.

Relationship between total utility and marginal utility schedule of Total, marginal and average utility.

Quantity of Goods consumed	**Total Utility**	**Marginal Utility**
0	0	–
1	15	15
2	25	10
3	32	7
4	38	6
5	41	3
6	43	2
7	43	0
8	42	-1

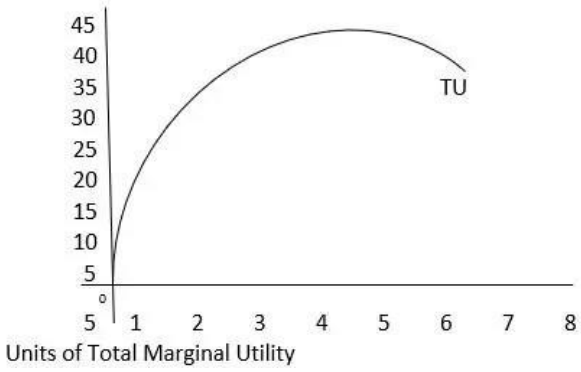
Both marginal utility and total utility are related

When a consumer increases consumption of a commodity total utility rises to a maximum and then decline. On the other hand, the marginal utility of any commodity decreases as more is consumed. When total utility increases to a maximum point then marginal utility is zero.

As total utility continued to decrease, marginal utility becomes negative. The table shows the relationship between both concepts.

At quantity seven, total utility is zero. When total utility decrease at 8th unit, MU is negative.

The fact that total utility increases at a decreasing rate is shown by the decreasing steps of marginal utility curve



SCHEDULE OF TOTAL AND MARGINAL UTILITY

The Law of Diminishing Marginal Utility
The law of diminishing marginal utility states that the amount of satisfaction (or utility) an individual derives as his consumption of that commodity increases as a result of continuous consumption of the same commodity.

Utility Maximization
Utility Maximization for one product
For one product, a consumer maximizes utility when the marginal utility of that commodity equals the price of the commodity. This is represented mathematically thus, MUx = Px

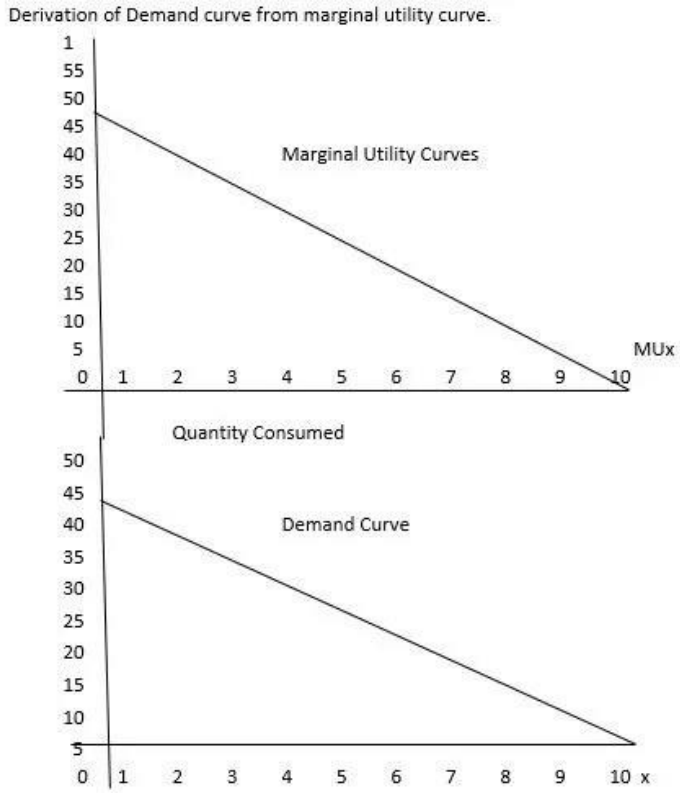
Utility maximization of many products
In case of many products the consumer will be at equilibrium where there is equality of the ratio of the marginal utility of the individual commodity to their twice.

The utility maximization concept requires that the ration of marginal utilities of the last units of the commodities should be equal to the ration of prices.
(MUx)/Px = (MUy)/Py = MUz/Pz

Derivation of demand curve from utility theory
Derivation of demand is based on the law of diminishing marginal utility. Marginal

utility is key concept underlying demand.
It slopes downward from left to right like the demand curve.
A consumer's demand for any product is a function of marginal utility. Marginal utility slopes that is more of a commodity is consumed, the satisfaction derived declines.

Derivation of Demand curve from marginal utility curve



EVALUATION: 1. Define utility

2. **State and explain the types of utility**
3. **State the law of diminishing marginal utility**

CLASSWORK: As in evaluation

CONCLUSION: The teacher commends the students positively

Select Language

Term: 1st Term

Week: 8

Class: Senior Secondary School 2

Duration: 40 minutes of 2 periods each

Date: January 2027

Subject: Economics

Topic: Price and quality determination

SPECIFIC OBJECTIVES: At the end of the lesson, learners should be able to

1. **Describe when equilibrium in the short-run and long-run**
2. **Describe when a competitive firm will make a loss**

INSTRUCTIONAL TECHNIQUES: Identification, explanation, questions and answers, demonstration, videos from source

INSTRUCTIONAL MATERIALS: Videos, loud speaker, textbook, pictures

INSTRUCTIONAL PROCEDURES

PERIOD 1-2

PRESENTATION	TEACHER'S ACTIVITY

STEP 1 INTRODUCTION	The teacher reviews the previous lesson on concept of utility
STEP 2 EXPLANATION	She describes equilibrium in the short-run and long-run
STEP 3 DEMONSTRATION	She describes when a competitive firm will make a loss
STEP 4 NOTE TAKING	The teacher writes a summarized note on the board

NOTE

PRICE AND QUALITY DETERMINATION

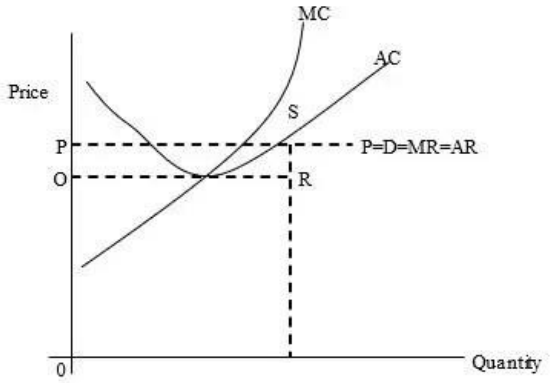
EQUILIBRIUM IN THE SHORT-RUN

The short run is the period in which a firm can vary its output by changing the variable factors of production. In the short-run, a firm can make abnormal profit. Since the market determines the prices at which goods should be sold, a firm can choose the quantity that will maximize its profits.

Equilibrium occurs when the following conditions are satisfied:

1. Marginal cost is equal to marginal revenue (MC=MR)
   2. Marginal cost should cut the marginal revenue from below at the point of equality.

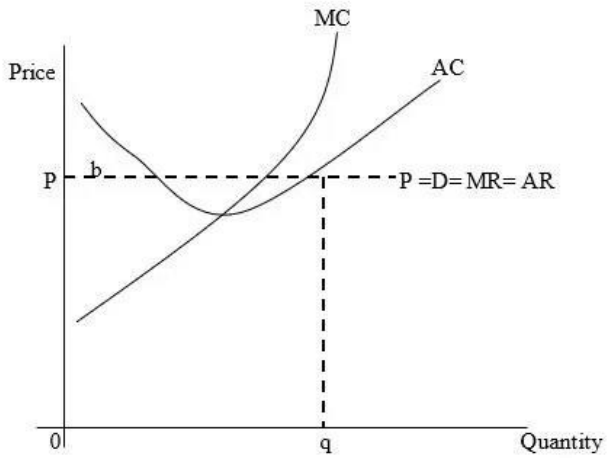
In the figure below, at point b price is greater than marginal cost; therefore, it is better to increase output. The firm is at equilibrium at point S where MC=MR=P=AR. At this point, the firm is making abnormal profit. This is represented by rectangle PORS.



Abnormal Profits in the Short-Run

EQUILIBRUM IN THE LONG- RUN

The long run is a period in which all cost varies with the level of output. During the period, firms can adjust their scale of operation. In order to enjoy the abnormal profit, new firm are likely to enter the market with the entrance of new firms, supply will increase and price may fall if demand remains constant, therefore both the new and old firms will adjust their output to the new price. In the long run, the firms will make normal profit because all the firms will just be covering average cost. Equilibrium will be reached when marginal cost equal to marginal revenue and price (MC=MR=AC=AR=P=D+).

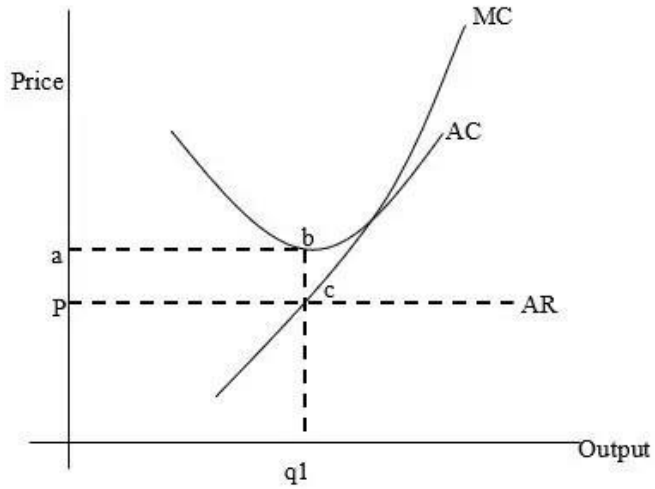


Long-Run Equilibrium Position of a Perfect

The firm produces Oqi and sell at OP. The producer will be making normal profit because the average cost is tangential to average revenue.

LOSS OF A COMPETITIVE FIRM

A perfect firm will be making loss if the price is below the average cost.



In the figure above, at price **P**, the firm suffers losses since price is below the average cost. Loss is therefore represented by **apbc**. If the firm cannot cover its average cost it may close down. This may be the point of exit from the market.

EVALUATION: 1. Describe equilibrium in a short-run and a long-run

2. **Describe when a competitive firm will suffer losses**

CLASSWORK: As in evaluation

CONCLUSION: The teacher commends the students positively