COURES TITLE: PRINCIPLES OF ECONOMICS I CODE (BAM 114) & PRINCIPLES OF ECONOMICS 11 (BAM 124)

(1a) Given the table below

Marks 10 15 20 25 30 35

Frequency 1 1 4 3 6 5

Calculate: Arithmetic Mean and Mean Deviation(M.D)

SOLUTION

(1) Prepare a table

Marks (X)	Frequency (f)	FX	Absolute values	F(x-x)
			(x-\(\bar{x}\)	
10	1	10	(10-26.75)=16.65	16.65
15	1	15	(15-26.5)=11.65	11.65
20	4	80	(80-26.65)=53.35	213.4
25	3	75	(75-26.65)=48.35	145.05
30	6	180	(180-26.65)=153.35	920.1
35	5	175	(175-26.65)=148.35	741.75
	20	535		2048.6

The Arithmetic mean (x) ΣFX

 $\sum F$

535/20 = 26.75

The Mean deviation (M.D) $\sum F(x-\ddot{x})$

N

M.D = 2048.6/20 = 102.43

(2) With the data below, tabulate a consumer DD curve.

Prices per tin: 250 220 180 150 130 80

Qty per week: 100 120 150 170 190 220

The above data can be better presented in a table

Prices per tin (N)	Qty bought per week/tin	
250	100	
220	120	
180	150	
150	170	
130	190	
80	220	

The above explains the simple law of demand that at lower price a higher number of items of a given commodity is demanded. While at a higher price a lesser or smaller quantity of that same item is demanded. This means that there is an inverse relationship between price and quantity.

(3) Explain what is meant by Microeconomics and Macroeconomics.

Students should be able to explain the meaning and highlight the basic issue in each aspect

Micro economics is a branch of economics that deal with the treatment of variables in their smaller and individual forms. It studies the details, objectives and decisions of individuals for economic units such as consumers, households and firms. It addresses such issues as consumer behaviour with respect to demand, supply, production, distribution, etc

Macroeconomics on the other hand deals with the treatment of economic variables in their aggregate (whole or large) form and relationship, as distinct from their individual. Macroeconomics explains the country's overall economic activities in monetary policies, stabilization policies, fiscal policies, international trade and payments. It involves analysis, planning and policy making / simulation. Macroeconomic policies are used to influence to a greater extent the level of economic activities by various governments in their planning endeavours. Itenable a proper understanding of the economic situation being addressed.

Macroeconomic theory is defined as that part of economics which is primarily concerned with the study of relationships between broad economic aggregates, the most important of which are National income, Aggregate savings and consumption, Investment, Aggregate employment, money supply, Inflation, Balance of payment, etc.

These variables mentioned in the study of Macroeconomics are issues whose magnitude can be changed, that is, something that can take on different values.

(4) Explain the associated characteristics of the Economies system

Should be able to clearly explain the meaning of each of the different system and state the characteristics

There are three broad types of economics system. These are capitalist, Mixed economy and Socialist economy. Capitalist is the type of economy based on the private ownership of wealth, the free market and with minimum government participation. The major aim is profit-making. The characteristics are:

- a. The means of production and distribution —land, labour, capital and entrepreneur are owned by private individuals
- b. the forces of demand and supply determine the prices of factors of production
- c. It is dominated by profit-making
- d. It has laissez faire feature that is freedom of practice and choice.

Mixed economy

In this economic system, all economic resources are owned and controlled by both the private individuals and govt. thus both participate fully in management of the country's resources. The characteristics are:

- a. Both the private individuals and government own and control the use of resources. This ensures greater efficiency and effectiveness in resources management.
- b. Major decisions as in what to produce, and for whom to produce, are taken by both the individuals and the govt.
- c. Profit and welfare (the price mechanism and the general wellbeing of the people), direct resources allocations.
- d. It entails the employment of the best hands so as to attain efficiency in the use of resources.

The Socialist Economy System

This system entails public ownership of the means of production in other words, all existing economic resources are owned and controlled by the state, the three requirement of socialist economy are common ownership, common control of means of production and central planning. The characteristics are:

- a. Means of production: land, labours, , capital and entrepreneur, arte collectively owned and controlled by the state.
- b. There is full employment of resources and labour
- c. Resources are directed to the general wellbeing of the people
- d. Decision as to what to produce, how to produce, and for whom to produce, are taking by the state/central/ planning committee.
- (5) Explain these terms: Dependent and Independent variables, Endogenous and Exogenous variables.

Students should be able to differentiate these variables and possibly give examples accordingly. Dependent variables is that variable whose variable is determined by other variable in the system e.g. D=F(Y, T) i.e. demand (D) depends on income (Y) and Taste (T). In this case, income (Y) and taste (T) are the independent variables of demand (D) other examples are Qs=F(Climate).

(c) Endogenous and exogenous variables

Endogenous variables are variables explained by economic factors within a theory while exogenous variables are those that are determined by factor outside the theory. Exogenous variables are often no-economic factors but political e.g. Qs = F(P,K, C), price (P) and capital (K) are endogenous to influencing quantity that will be supplied while climate (c) is an outside factor or exogenous

(6) Explain what you understand by Demand and its various forms

Meaning of demand

Demand refers to the quantity of a commodity which could be bought by a consumer or consumers at a particulary price within a given period of time. We have individual consumer demand and market demand. Demand must be effective the desire for the commodity must be backed up by willingness and ability to pay. Demand is different from wants which refers to more desire for a commodity. The types of demand are:

- (a) Composite demand- the overall demand for a commodity that has several uses. For example, the overall demand for wood for making furniture, building, etc.
- (b) Competitive demand- this type of demand occurs with commodities which have close substitutes. If the demand for one increase the demand for others will fall e.g. tea and coffee, a biro and a fountain pen.

- (c) Derived demand- this type of demand occurs with commodities which are required for the production of the commodities and not for the production of other commodities and not for the direct satisfaction of wants. For example, wood is required for furniture making. Flour is required for bread, cake, meat pie sausage,etc,
 - (d) Joint or complementary demand- it is the type of demand which occurs when two more commodities are required together to satisfy a particular need, the demand for the others would also increases, e.g. a fountain pen and ink. A car and petrol and vice-verse, a fall in the demand for one will lead to a fall in the demand for the other.

(7) Explain the conditions that could favour abnormal Demand

These are curve that do not conform to the law of demand. Some possible conditions that may to leads to abnormal demand curves are:

- (a) Luxuries, articles of ostentation- expensive articles with snobs appeal attract higher demand and at higher prices
- (b) Expectation of future rise or fall in price- consumer may increase their demand for a commodity if they foresee a further rise in price in future.
- (c) Giffen goods- demand for giffen goods may fall as their prices fall. A fall in the price of a basic food stuff such as garri, may lead to less being bought and the extra income spent on purchasing other superior substitutes such as rice, beans etcgiffen goods, therefore, have an abnormal demand at lower prices.
- (d) Veblen effects- the concept introduced by Professor Veblen refers to ostentatious consumption it applies to ma situation where the demand for consumer goods is increased because it bears a higher price rather than a lower price.
- (e) Snob effect- it applies to the extent to which demand for a commodity is decreased, other things equal owing to the fact that too many people are also consuming the same commodity or increasing their consumption of it. It depicts the desire of people to be exclusive or different. It is a way of disassociating from those that can be described as the lower echelon in the society i.e the hewers of wood and the drawer of water.
- (f) Bandwagon effect- the related to the extent to which the demand for a commodity is increased because otherpeople are buying or consuming it. It demonstrates the desire of people to purchase a particular commodity in order to conform for people they wish to be associated with it may be an attempt to be modern fashionable and stylish.

(8) Discuss the determinants that influences supply elasticity

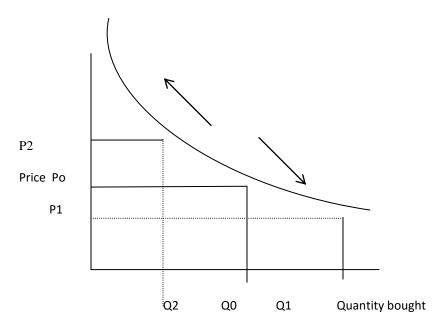
A number of factors that can affect the supply of a commodity are:

- (a) Price of the commodity- if the price of a commodity increases more of it would be supplied other things remaining equal less would be supplied if its prices falls.
- (b) The cost of production- if the prices of factors of production increase, less of them would be demanded by the producer hence both his output and supply would fall lower cost of production would increase supply.
- (c) Government policy- An increase in tax would increase the producer cost of production thereby leading to a lower supply. On the other hand, increases government subsidy would reduce the cost of production and encourage the producer to supply more.
- (d) Number of producer- the greater the number of producers the large the market supply is likely to be other things remaining equal.

(e) Weather- this variable affects agricultural most goods weather can result in a bumper harvest hence increased supply. Bad weather on the other hand can result in very poor crop yields, hence lower supply

(9) Explain what you understand by change in Quantity demanded and a change in demand curve.

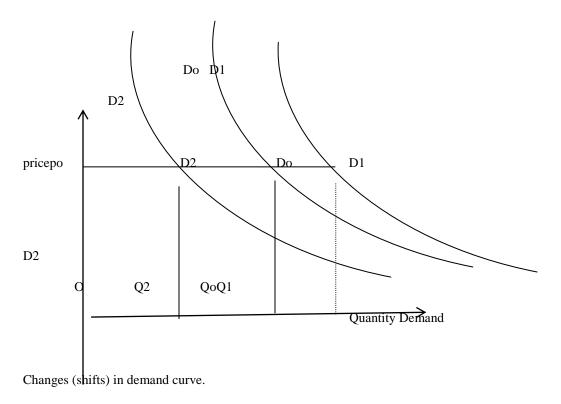
A change in the quantity demand refers to an increase / decrease in the quantity bought of a commodity as a result of a fall or rise in the price of the commodity. It occurs as a result of change in the price of the commodity itself all other factors remaining constant. This represents a movement along the same demand curve.



Changes in the quantity demanded

A decrease in price from OPo to OP1 brought about an increase in the quantity demanded form OQo to OQ1

A change in demand occurs if there is an increase or decrease in the quantity of a commodity bought without any rise or fall in the price of the commodity, e.g. a change in consumer' income or an increase in the population. In this case, there is shift in the demand curve either to the right or to the left as shown in shift to right which indicates an increase in demand or a shift or a shift to left indicating a decrease in demand.



In the above diagram, a shift in the demand curve to the right from DoDo to D1 D1(i.e. an increase in demand) led to an increase in quantity bought from QQo to QQ1.

(10) Explain what you understand by Utility and Total Utility

The concept utility is a psychological doctrine. It is used to mean the satisfaction derived from the consumption of a commodity at a particular point in time. Utility is about making purchases with a given prices of commodities with the consumer's wants, desires, tastes, preferences or indifferences also utility is some property common to all commodities wanted by a person. Utility is subjective and psychological it resides in the mind. Also the measure of satisfaction derived from the consumption of the same type of commodity by different persons varies.

In explaining the concept of utility these three issues are important:

- (i) The consumer is a target or a person to watch in utility
- (ii) Utility is all about the want satisfying power that a commodity possesses and that satisfying to power is what makes consumer to want and to ultimately demand for such commodity.
- (iii) Every commodity has its own appeal to different consumer at different points in time.

Total utility (TU) - Total utility refers to the summation or total of satisfaction that a person derives from the successive consumption of a particular commodity. The total utility can also be explained as the amount of satisfaction that a person obtains from the consumption of a particular goods or service when the satisfaction derived from the first consumption is added to the one derived for the second consumption and the result is added to the satisfaction derived from the third consumption and on and so on, then total utility is obtained. One vital point is that one unit of a commodity yields some amount of utility to the consumer. As the quantity of a commodity consumed increases the total utility increases at a diminishing rate to a certain point. The total utility increases at a diminishing rate to a certain point. The total utility gets to a maximum point or satiation point. At the point of satiety no quantity of the commodity in question that is consumed will effects any increase in the total utility. As time goes on and as more quantity is consumed, the total utility begins to diminish. The fact that it increases means that it gets to the maximum or the satiety point before it starts to diminish

(11) Given Qtydd= 40-4p, Qtyss=12p-24

Determine the equilibrium price, quantity and excess Supply at price of N6

Recall Qdd = Qss-----(1)

$$Qdd = 40 - 4p$$
 -----(2)

$$Qss = 12p - 24$$
-----(3)

Collect like terms

$$40 + 24 = 12p + 4p$$

$$64 = 16p$$

$$P = 64/16 = 4$$
 -----(4)

Substitute equation (4) into (2) and (3)

$$Qdd = 40-4p$$

$$Qdd = 40 - 4(4)$$

$$Qdd = 40 - 16 = 24$$
----(5)

$$Qss = 12p - 24$$

$$Qss = 12(4) - 24$$

$$Qss = 48 - 24 = 24$$
-----(6)

Equation (5) and (6) are equation.

At price #6 calculate excess supply.

$$P = 6$$
, $Qdd = 40 - 4p$

$$Qdd = 40 - 4(6)$$

$$Qdd = 40 - 24 = 16$$

When
$$p = 6$$
, $Qss = 12p - 24$

$$= 12(6) - 24$$

$$= 72 - 24 = 48$$

At excess supply of P = 6, Qss - Qd = 48 - 16 = 32

Excess supply is 32

(12) Discuss the factors affecting productivity

Productivity is influenced by the following factors:

- (i) quantity and quality of labour such as skilled and semi-skilled labour
- (ii) quantity and quality of economics and social infrastructure goods, school, water. Elasticity communication etc
- (iii) the country's economic policy for industrialization and agricultural development
- (iv) social and political stability existing in the country
- (v) working conditions under which the workers are operating
- (vi) level of technology of the country
- (vii) quantity and quality of natural resources available to the country
- (viii) availability and access to capital
- (ix) Population size and growth of the country.

(13) Briefly explain the types of production

Production is divided into:

- (i) primary production
- (ii) secondary production
- (iii) tertiary production

Primary production - this refers to the extraction of raw materials and mineral resources in their natural farm land and sea. For example, product from agriculture mining, quarrying and fisheries are primary products. Primary production forms the basis for further production

Secondary production - secondary production entails the conversion of basic raw materials or semi-completed commodities to their final forms that is acceptable to the consumer. Processed goods such as garri, clothes, houses motor cars etc are examples of products of secondary production. The end products of secondary production are known as manufactured goods.

Tertiary production -this is the third sector of production and it includes commercial and professional services. The activities and functions of the wholesalers, retailers and transporters are tertiary- production. Also included in tertiary production are persons who perform direct/professional services such as doctors, lawyers, barbers teacher and salesman.

(14)Explain the following concepts- Average cost, marginal cost Total cost, fixed cost & variable cost

Types of Cost

Average cost (AC)-this is the total cost of production of a commodity by a firm divided by the number of unit of output

$$AC = TC/Q$$

Marginal cost- this is a change in total cost of production brought about by a unit change in the quantity of output. That is the extra cost of increasing output by one more unit.

Total cost-this is made up of all the costs incurred in the production of a given output.

$$TC = FC + VC$$

Fixed cost- these are costs that do not change with output. They include the costs of equipment, building, land etc. these are essential for any production and whether profit is made or not, they have to be employed

Variable costs-these are costs of production that change with output. If the output increases, they are bound to increase. They include costs of producing raw materials, cost of labour, etc these are called variable costs

VC=TC-FC

(15) Explain the basic assumptions that are relevant to consumers' utility maximisation

Utility maximization implies the equilibrium of the consumer or the maximum possible level of satisfaction which is attainable by a consumer with appropriate recognition or consideration of the constraints such as income of commodities or utility maximization is when the satisfaction derived from the consumption of a commodity equals its price (income).

In determining the behaviour of consumer as above, the utility approach makes available a basis for the determination of the way a consumer will allocate his income among various goods. The following assumption must however be first noted.

- (a) the consumer is rational in that,
- (b) his tastes are consistent,
- (c) he maintains a correct cost calculation and,
- (d) he makes decision that minimizes utility,
- (e) the income of the consumer is fixed,
- (f) the law of diminishing return operates with commodities in questions;
- (g) the commodities available to the consumer are not related.

The situation can be one of single commodity or one of more than one commodity. In a situation of single commodity and for consumer's purchase of optimum quantity the marginal utility must be equal to price i.e MU=p. This means that marginal utility of commodity E must be equal to the price of commodity X, etcMUx = Px

(16) Briefly explain the following concepts (i) Scarcity (iii) Scale of Preference (iii) Choice (iv) Opportunity cost

Scarcity - in Economics, scarcity means limited in supply relative to demand for them. For instance, the resources at the disposal of the student to satisfy his wants are limited. Its limited to the individuals resources available to households, firms industries, group and governments are also limited or few. The concept of scarcity is important because it calls for the need to allocate available resources among their alternative uses. For man to satisfy his most important wants due to limited resources, he has to draw up a scale of preference, make a choice, and such involved opportunity cost.

Scale of Preference —it is a list of wants arranged in order of priority or importance so that the moat important will be satisfied first before the least important ones. This is because resources are scare. This means that for us to make choice less difficult it is better to arrange our wants in order of importance. Supposing a student arranges his wants in this order: books, shoes, wristwatch and radio. Books become the most important want and radio the least important wants.

Choice - it is the act of choosing or selecting from a number of alternative items. Example a student with N100.00, and wants a shirt and school sandals N100.00 cannot buy both items. And if the student then chooses the textbook, his choice is therefore the textbooks.

Opportunity cost –it is foregone alternative. It arises as a result of scarcity of resources. For example the opportunity cost of purchasing a textbook by a student, is shirt left un-bought. Opportunity cost is relevant to individual business firms and the government.

(i) It helps individuals to decide on how to use their limited resources to satisfy their unlimited needs

The cost (Money cost) of seeing movie for instance, in the jeans trouser whose purchase is forgone by a young boy (real cost)

- (ii) It helps the government/society in making decision on how to spend its revenue in carrying its numerous projects/services. For example the cost of setting up an ammunition factory is to civilian benefits (goods, roads, education telecommunication etc which are sacrificed.
- (iii). It also help the manufacturing firms in deciding the methods of production to be adopted for example, the opportunity cost of using capital intensive method of production is the labour intensive method sacrificed or forgone.
- (17) Examine briefly the basic economic problems in Economics
 - i. what to produce
 - ii. how to produce
 - iii. for whom to produce and
 - iv. how to use resource efficiency

What to produce - the first basic question or problem is that of commodities or goods and services to be produced and in what quantities are they going to be produced. The problem arises due to the fact that our wants are limitless while our resources or means are scare.

In an attempt to answer the economic problem we must allocate our resources wisely and it must involve choice consequently the production of some product or commodities and the abandonment of other – that is opportunity cost. If we produce more of certain goods will definitely involve the production of less of other a kind of trade – off.

On a national level, the resolution of the problem is dependent upon the type of economic system being practiced. In capitalist or free- enterprise socialist it is the price system working through the freedom of private individuals and the free movement of the forces of demand and supply that what is to be produced are decided given available scare resources and the profit motive. In socialist society, the problem is resolved through the public sector. That is since the government owns all means of production. It therefore determines what to produce and in what quantities they are to be produced. Also in communist societies, the government through the people or the masses resolved the question of what to produce and how much to produce of such commodities. In a mixed economy such as Nigeria where both the private and public sector exist by side, the question is resolved by both sectors.

How to produce - this second fundamental economic problem of every society is that of how to produce those commodities already chosen. This involves three issues who are to produce these commodities. What are the resources to be used and what is the method or the techniques of production to be used.

With regard to who are to produce the goods, the type of economic system comes in. In the free enterprise system, private individual make the decisionwhy the government does that in the socialist. Both private individuals and government produce in a mixed economy.

For whom to produce -the third basic problem is that of who benefits for or enjoy the goods and services produced. In other words, it involves how the total national product is distributed among various members of the society.

Efficiency of resources – this arose from the first three problems. It naturally follows that since we have looked at the questions of what to produce, how to produce them and for who they are produced, we have to ask whether the production and distribution are efficiently done with regard to the use of the available resources.

Efficiency in resources use is to two forms: 'Productive efficiency and 'Allocative efficiency''. Productive efficiency involves attempting to minimize cost for a given level of cost. Production is inefficient if it would have been

possible to produce more of at least one commodity without simultaneously producing less of any other by reallocating resources. While Allocative efficiency involves the manner in which limited resources are distributed among commodities produced and the manner in which produced goods are distributed among all the in the society. Resources are efficiency allocated if it is not possible to make any person better off while making at least one worse off by reallocating resources.

(18) Explain Flows and Stock

A flow variables has a time dimension or limit such that its measurement is only meaningful for analysis when attached to a time period, for instance, national income, volume of money in circulation and rate of inflation must be measured at, a particular period of time e.g. national income of 2016, volume of money in circulation as at June, 2018, or inflation rate in December, 2017, etc. While a stock variable on the other hand has no time dimension or limitation e.g. the wealth of nation. In other words, it is quantity measurable specified point in time

(19) The following data represents the number of different kinds of balls sold by a retailer 10, 15, 20, 35, 55, 60, 65, 70, 80, 90. Calculate the Mean Deviation

Before the arriving at mean deviation, the arithmetic mean will first be calculated. Let this be

$$X = 10+15+20+35+55+60+65+70+80+90$$

10

= 500/10 = 50

$$M.D = (10-50) + (15-50) + (20-50) + (35-50) + (55-50) + (60-50) + (65-50) + (70-50) + (80-50) + (90-50)$$

10

= 240/10 = 24 = M.D

(21) Data below shows the age of some pupils who benefitted from a sponsorship program in a particular year

Age / year	10 -14	15 - 19	20 - 24	25 - 29	30 - 34
Number of	10	20	5	10	15
students					

Using the data above, determine

- (i) Variance
- (ii) The Standard deviation

Prepare a table

Years	of	Class interval	F	FX	(x- ẍ)	(x-\(\d^2\)2	F(x-\(\delta\)2
Pupils		(X)					
10-14		12	10	120	(12-19.73)=7.73	59.75	597.5
15-19		17	20	204	(17-19.73)=2.73	7.45	149
20-24		22	5	110	(22-19.73)=2.27	5.15	25.75
25-29		27	10	270	(27-19.73)=7.27	52.85	528.5
30-34		32	15	480	(32-19.73)=12.27	150.55	2258.25
			60	1184			3559

Calculate for arithmetic mean $\ddot{x} = \sum fx/\sum f$

$$= 1184/60 = 19.7333$$

- (1) The variance = $\sum f(x-\ddot{x})^2 / \sum f = 3559 / 60 = 59.34$
- (2) The standard deviation $\sqrt{\sum f(x-\ddot{x})^2} / \sum f$

$$= \sqrt{3559/60} = \sqrt{59.34} = 7.703$$
 years

(22) Discuss the determinants of demand

A number of factors that can affect the demand for commodity are:

- (a) Price of commodity- a greater quantity is bought at a lower price.
- (b)Prices of other commodities- Prices of the complements and substitutes of a commodity affect the demand for it, if the price of its complement falls. More of the commodity would be bought e.g. decreased prices of cars would increase the demand for petrol. On the other hand, if the price of its substitutes falls less of the commodity would be bought.
- (c) The consumer's income- increase in the income of a consumer would make him buy more of a commodity.
- (d) Population size- increase in the size of the population could increase the number of consumer and bring about and increase in the aggregate demand will a decrease in the population would have a reverse effect.
- (e) Taste and fashions A consumer would buy more of a commodity for which he has a stronger taste, and less of those he does not like much. Goods which are in vogue tend to have a higher demand than those that are out of fashion.
- (f) Government policy- An increase in commodity tax would increase the price of a commodity thereby causing the demand for it to fall.
- (g) Weather and season- Changes in weather lead to changes in demand for some commodities, e.g. more ice cream is bought during hot weather.
- (g) Social events and festivities- Festive occasions such as Ramadan, Easter, etc affect demand for commodities such as rams and clothing, etc, there is a high demand for them during these occasions
- (i) Income distribution: if the distribution of income is in favour of the rich, these would be a very high demand for luxury goods, while a distribution of income in favor of the poor would increases the demand for necessities.
- (23) Explain the terms superior and inferior goods

A good is considered normal or superior if the demand varies directly with income. More of normal goods will be bought as income increase. Examples in includes clothes, cars and buildings. People will tend to buy more of the goods as they get richer.

Inferior goods - A good is considered inferior if the demand varies inversely with income. This means that as income increase, less of inferior goods are bought. Examplegarri, thatched house and bicycles.

(24)
$$Qd = 20 - 2p$$

$$Qs = 6p - 12$$

Determine the equilibrium price and quantity, and the excess supply at the price of ₹ 10

Recall Qdd = Qss----(1)

$$Qdd = 20 - 2p$$
 -----(2)

$$Qss = 6p - 12$$
-----(3)

Collect like terms

$$20+12 = -2p+6p$$

$$32 = 4p$$

$$P = 32/4 = 8$$
 -----(4)

Substitute equation (4) into (2) and (3)

$$Qdd = 20-2p$$

$$Qdd = 20 - 2(8)$$

$$Qdd = 20 - 16 = 4$$
----(5)

$$Qss = 6p - 12$$

$$Qss = 6(4) - 12$$

$$Qss = 24 - 12 = 12$$
-----(6)

Equation (5) and (6) are equation.

At price # calculate excess supply.

$$P = 4$$
, $Qdd = 20 - 4(4)$

$$Qdd = 20 - 4(4)$$

$$Qdd=20-16=4$$

When
$$p = 4$$
, $Qss = 6p - 12$

$$= 6(4) - 12$$

At excess supply of P=4, Qss-Qd=12-4=8

Excess supply is 8

(25) Explain the followings: (i) Income elasticity of demand (ii) Cross elasticity of demand (iii) Price elasticity of demand

Cross elasticity of demanded - Is the degree of responsiveness of the quantity of a commodity demanded to a change in the price of another commodity. The coefficient of cross elasticity of demand can be measured by

Exy= % Change in quantity of x

% change in price of y

Determine the cross elasticity of demand if the price of commodity y increased from N80.00 to N100.00 and the quantity bought decreased from 400 units to 320 units.

Solution

Change in quantity of x bought = 400 - 320 = 80 units

% change in quantity = $80/400 \times 100/1 = 25\%$

change in price of y = 100 - 80 = 20

% change in price of $y = 20/80 \times 100/1 = 25\%$

$$Exy = 20\%/25\%$$
 = 20/25 = 4/5 = 0.8

(iii) Price elasticity of demand - defined as the degree of responsiveness of quantity demanded / supplied to a small change in the price of the commodity along a single curve.

Ed = $\frac{\% \Delta \text{ in quantity demanded}}{2}$

% Δ in price

Or Ed = $\Delta q \times p$

 $\Delta P \times q$

Price elasticity of demand may be unity, greater than unity (elastic) less than unity (inelastic), zero elasticity (perfectly inelastic) and infinitely elastic (perfectly elastic).

- (26) Explain the followings: (i) Utility (ii) Total utility (iii) Marginal utility
- (27) Carefully outline and explain the characteristics of indifference curves

This is a curve showing the combination of commodities that yield the same satisfaction to the consumer (i.e equal satisfaction) curve, the indifference curve shows the level of satisfaction at which the consumer is indifferent for which combination he receives. The characteristics of indifferences curve are:

- (1) indifference curves are negatively-sloped
- (2) indifferences curve are non-interceptive,
- (3) indifference curves are everywhere dense

- (4) the higher in difference curve is to the right of another indifference curve, the higher the satisfaction level that it shows.
- (5) indifference curve are convex from the origin but concave upwards
- (6) indifference curves never touch either of the axis (i.e y axis and x axis)

(28) Briefly explain the Cardinal utility theory of consumer behaviour

The Cardinal theory assumes that different quantities of good yields varying quantities of measurable (cardinal) utility to the consumer. That is, for any period of time and with constant tastes, the preference of the consumer can be represented by a cardinal utility measure, which depends on the quantity of goods or services consumed. The assumption is that utility can be measured or quantified in terms of monetary units or in terms of subjective unit called "utils".

The cardinal utility theory of consumer behaviour is based on the assumption that:

- (i) The consumer is rational-subject to his income and price he spends his income in such a way that his utility is maximized.
- (ii) He is able to compare the utilities from various commodities bundle. He is able to evaluate the various alternatives.
- (iii) The consumer has full knowledge of all relevant information for his choice of goods and services he is completely aware of all the available prices and his constraints.
- (iv) The utility derived from the consumption of successive units of any goods or services diminishes as more and more of such goods and services are being consumed.

(29) Explain in clear terms the meaning of Production function

The quantity of any commodity produced on the amount of inputs. Output is a function of input. The production function shows the relationship between the factor inputs of the firm and its output of goods and services at any specified period. The relationship is often expressed in a general functional form as X = Q (F_1 , F_2 , F_3 Fn) where F_1 , F_2 , F_3 Fn represent quantities of various factors – input and the variable X represent s the maximum output the firm can produce with factor inputs.

The proportion in which various factors inputs as combined to produce a given quantity of product are usually variable, that is, there are numerous possible alternative combinations of factors inputs that can produce a given level of output. However, some of the factor are fixed, especially land and other variable factor on output (returns)

(30) Demonstrate a clear understanding of the law of diminishing returns

The law states that if you combine increasing units of a variable factor with a fixed factor, then at first, total output will increase at an increasing rate, up to a point, but beyond this point, total output will increase at a decreasing rate. The law was first applied to output from land as against the rate of growth in population. This is to be found in the famous work of T.R. Malthus on Population but the law is now applicable to all factor of production.

(31) What is external economics of scale?

External economies of scale are the benefits or advantages enjoyed by firms-both large and small by being close to one another or in the same locality, region or state.

(i) local supply of skilled labour is made available in that area by schools and colleges offering special courses mainly for the local industries

- (ii) they can engage in joint research ventures with each other in the same locality e.g, AAU, Ekpoma and Rice Farmers in Ekpoma.etc
- (iii) Subsidiary firms and processes raw materials needed by the other firms.
- (iv) There is access to a local service such as banking insurance, barbing, restaurants etc by workers in the surrounding industries.

(32) What is the meaning of Deed of Partnership?

A partnership business is governed guided by a written agreement known as the Deed of partnership, which is drawn up by a solicitor/lawyer. The deed of partnership contains these:

- (a) the name of the business
- (b) the nature or type of business
- (c) the amount of capital to be contributed each partner
- (d) to the business
- (e) How to bring the partnership business to an end when the need arises.

In a partnership business, there are three types of partners

- (a) ordinary active or general partners
- (b) sleeping, dormant or limited partners
- (c) nominal partner

(33) What is Public Corporation?

Public cooperation or statutory corporation are business enterprises set up by the government to provide essential services to the people at a minimal or subsidized price. The cooperation is established by Act of parliament which lay down their duties and their structures. While the day-to-day management of the cooperation are the responsibilities of the Board of directors appointed by the Government but accountable to parliament, thus, there are no shareholders.

Public corporations cover a wide range of activities from broadcasting to manufacturing. Example of public corporations in Nigeria are the defunct TRANSCORP, Steel industries at Oshogbo, Ajaokjuta and Jos, Nigeria Railway Corporation (NRC), Water Board, Nigeria Port Authority (NPA), Virgin Nigeria, etc.

(34) Distinguish between Memorandum of Association and Articles of Association

Students should be able to outline the salient points contained in each association as distinguishing features.

Memorandum of association -this contains

- (i) the name and address of the company
- (ii) the objectives of the company
- (iii) the number of shares and how they are distributed
- (iv) the liability of the members
- (v)

The memorandum must be signed at least two persons for private limited company and seven persons for public limited company.

Article of association contain rulesfor internal affairs of the company. It states

- (i) how meetings are to be conducted
- (ii) the voting rights of each members
- (iii) The power and duties of the directors

(iv) How new appointments are to be made

(35) Distinguish between total revenue and marginal revenue

Total Revenue (TR)

Total revenue is the total receipt or amount of money that the firm receives from the sales of its products, i.e. gross revenue. It is derived when quantity or output sold is multiplied by the price at each level of output. That is $TR = P \times Q$ or R = PQ

Marginal revenue is the change in total revenue when total sales or output change. That is, marginal revenue is the additional revenue obtained as a result of increase in output or sale by the unit. It can be derived by dividing change in total revenue with changes in total output at each level of output

$$MR = TR / TO$$

(36) Explain the basic features of monopolistic market

The features of monopolistic market are:

- (a) There are few or large number of firms in the industry and each selling identical differential products, and will be able to influence the price or output to their maximum advantage.
- (b) There is no free entry-the condition for entry is difficult or almost impossible arising from the risk involved and costs of setting up the business. Also, natural barriers like patent laws and rights and government regulations hamper freedom of entry.
- (c) There is absence of perfect knowledge or information about the market conditions and thus buyers may not know the prices charged by various seller
- (d) There also exist preferential treatment and price discrimination. Buyers are not treated alike in the market and are charged different prices for goods or services of the same technical qualities, for example, milk, tea, rice, etc.

(37) Write short notes on Oligopoly and Duopoly

This is another form of imperfect competitor in which a few firms which clearly recognize their interdependence produce the bulk of industry's output. The characteristic of Oligopoly are:

- (a) there are few firms or sellers each of which produces a substantial proportion of the entire industry's output
- (b) The firm are interdependence since the policies of each affect the others. This is because their products are close substitutes
- (c) There is a cut-through competition among the firms especially through advertisement.
- (d) there is lack of uniformity in the size of the firm in the market

Duopoly - is a special kind of oligopoly. It is market structure containing two firms or seller. Soviet and USA has duopolistic power (capacity) in the supply of war craft.

- (1) the feature of oligopoly also applied to duopoly
- (2) the two firms are completely independent
- (3) a change in output or price of one firm definitely affects the other and sparks off chain reaction

(38) Demonstrate a clear understanding of the operation of Nigeria Stock Exchange

The stock exchange is a place for trade in stocks bonds and shares. It is a place where borrowers borrow for long term and lender lend for term. A new or already existing public company in need offinance having been approved as a quoted company can raise funds by offering shares for sales on the stock exchange.

The capital market is predominantly dominated by the activities of stock exchange. It is a place for the trading of shares and bonds. It is a market for both new issues and already existing issues offered by firms that has met the requirements of the Exchange. The Exchange is an elaborate system that enables investors to invest or dispose securities at prices that are fair and equitable.

- (a) Provides a central meeting place for those who want to buy and sell shares.
- (b) Provides avenue for raising new capital for firms expansion and development.

(c)Help in bringing together private and public savings and making these available for investment purposes.

- (d) Helps in the reduction of liquidity (shortage of fund).
- (e) It facilitates dealings in government securities.
- (f) Through its regulation and operational codes helps to investigate any irregularities in the dealings of members with their clients.
- (g) It helps in coordinating the stock broking activities of members and exchange of information for the benefit of their clients and member
- (h) Provides an avenue for the continued operation and attraction of foreign capital for Nigerian's developmental aid.
- (i) Helps in maintaining fair prices for securities through supervision of activities connected with dealings in securities.
- (j) The kind of loan facilities given by the Exchange is the type required by commerce and Industry and it is long term capital.
 - (l) The Exchange is a sure for useful and relevant information as regards the trading of market securities. In other words, it can be referred to as 'information house of market securities'.

(39) Explain the macroeconomic objectives of the Nigerian government

Students should be able to explain each of these objectives as it translates to economy development. The basic macroeconomic policies of Nigeria are given below.

- (a) Reduction in the level of unemployment
- (b) Reduction in the level of inflation
- (c) Maintenance of healthy balance of payment
- (d) Sustenance of growth in the economy
- (e) Increase in industrialization
- (f) Economic stability

(40) Write short notes on (i) Open Market Operation (ii) Legal reserve requirement (iii) Bank rate

(i) Open Market Operation (OMO)- this control measure means the sales or purchases of government securities in the open market usually at the initiative of the Central bank. If the Central bank wants to increase the money stock, theBank will buy securities from the public and this increase the purchasing power of the public. When the Central bank wants to reduce the money in circulation, the Bank will sell securities to the public. OMO is a flexible means

- of controlling the size / quantity of money any time. In some cases it is free from announcement effect.
- (ii) Legal reserves / reserve requirement- this is one of methods through which the Central bank exercise sizeable control over the cash or other reserves of banking institutions. The essence is to ensure that banks gave sufficient cash or suitable liquid assets to meet daily demand for currency. From experiences bank know that customers do not demand their deposit at the same time and even if some do, others are paying in just as some are withdrawing, in such a case a proportion is kept to meet daily currency demand while the remainder is invested mostly on lending to earn profit. The proportion that is kept is known as cash reserves, in cash or in other liquid assets. If the Central bank wants to reduce the money stock using the reserve ratio, it will only need to adjust the ratio upward. The increase in reserve ratio will curtail lending activities of the commercial banks.
- (iii) Bank rate- it is quantitative control mechanism as a result of functions of the Central bank as lender of last resort. It is the rate at which the Central bank lends money to banks, discount houses and other financial institution. While leading rate is the rate commercial banks lend to the general public or investing public. The bank rate is closely linked to other rate in the country. Whatever rate he central bank uses would go down to the borrowing public. Loan from the central bank to commercial bank increases the reserves and enables them create credit. The bank rate to the commercial banks is the cost of borrowing and is expected that high cost of borrowing will discourage borrowing from the central bank because commercial banks to will pass the high rate to their customers who will be less willing to borrow at high rates. It is used as a monetary tool to reduce the quantity of credits or to increase it as the case may be.
- (41) Why is National Income computation seen as a major problem in the Less Developed countries?

The computation of National Income is seen as a major issue because of the following reasons:

- (a) In developing nations most data are wrongly gathered. The technical expertise needed for the collection and analyzing the data is grossly inadequate and as such genuine figures/ data are not available.
- (b) Putting money value on the goods and services produced by one self is very difficult. e.g. the cloths youwash yourself knowing that cloth washing is an economic activity. Items given / sold by trade by barter are not included captured in National Income.
- (c)In most developing countries the self -employed like traders, market women, artisans, etc do not keep records of their daily transaction and this is extremely difficult getting reliable data from such people
- (d) There are some activities of certain groups that generate factor income but are not legal and cannot be included in the calculation of the national income. For example, what we know as the yahoo-boys (internet fraud), gambling and prostitution etc.
- (e)Also, howdoes one put money value on a house occupied by oneself becausewhen the individual does not own a house he will hire one and pay rent? In this case, it is difficult to place rent value on the house.
- (f) Depreciation affects the capital goods which we use in the production prices, which is the appropriate method of use? This is because measuring deprecation is very difficult.

- (g) National income does not explain anything about the distribution of income among the different income bracket.
- (h) Data collection is a recent development in less developed countries and as such people are not willing to give out reliable information about them -selves because they do not understand what it is used for
- (i) National income does not explain or measures anything like human welfare because in the course of production like exploration a lot of hazards, pollution, and congestion in urban centers are not considered in the computation process of the account.

(42) Examine the variables that influence investment in Nigeria

- (a) Future expectation of business confidence -when expected future sales are high investment tends to increase when business confidence is low investment falls.
- (b) Real interest rate- it is an important determinant of investment because firms must borrow the necessary fund to purchase capital goods or to pay cost of holding stock of inventory. If funds are obtained from stock holders the interest rate represent the opportunity cost of using those funds. Higher interest rate will reduce the level of investment.
- (c) The rate of demand and firms current capacity- firms are not likely to invest further if the rate of demand by the customers is not encouraging and also if firms have excess capacity.
- (d) The rate of technological change- when new technology allows for either lower costs or better quality goods or production. Firms that wished remain in business have no choice but to make necessary investment. In contract, when technology changes very rapidly firms may hesitate to make substantial investment in equipment that may shortly become absolute.
- (e) Government tax policy- it is clear that the government tax policy affects the level of investment when business incentive increases levels of investment also increases, when they are reduced business sectors seems to be discouraged from investing.
- (f) High profit- when the profit of a firm increases at a given trading period their rate of investment also rises as well.
- (g) Attitudes of saving-using money carefully and wisely, a country that ismore able to save is more likely to invest
- (h) The level of income- the level of income of individual determines the level of investment he can undertake. The higher the level of a country 's national income the more they will be able to save and invest.

(44) Explain the main target of Economic Development

The essence of economic development is to see ensure that adequate steps are taken to ensure a steady and sustained rise in the overall welfare of all citizen in the country. For this to be achieved all sectors of the economy has to be developed and the population given the best in terms of quality education. To achieve this purpose, economic development has the following aims-

- (a) to improve all the major sectors of the economy if not all, another to have a sustainable growth, a comprehensive planning system should be developed to embrace and make all sectors viable efficient and productive.
- (b) to provide adequate infrastructure amenities in terms of goods railways, roads pipe-borne water, electricity, hospital, telephone system,etc
- (c) to provide and raise the general level of education of the people and ensure they are enlighten and well informed about the outside world.
- (d) to make sure that the people are properly taken care of in terms of good feeding. To guarantee this agriculture should be adequately developed.
- (e) economic development attempt to achieve a very high level of employment, good accommodation and clothing for its citizens.

(45) Discuss the obstacles to development in the Less Developed Countries (LDCs)

The need for development particularly in the LDCs is widely recognized even in the developed countries. There are problem in the attainment of these goals. Some of such problems are:

- (a) The vicious cycle of poverty it has been arguedthat the poor countries are poor because they are poor and that a major characteristic of less developed countries is absolute poverty. When income is low (poverty), savings will equally be low. With low (without external resources). When investment is low productivity is bound to be low and consequently incomes would be low. This view of underdevelopment requires external resources to be applied before the obstacles could be overcome.
- (b) Intrusive- customs and attitudes (practices) even though order civilization has a lot of influencein the lives of people in the LDCs. There still abound a lot of tradition and beliefs. Many of which are based on superstition which inhibit development. For example, there are expanses of land designated as evil forest in some LDCs. Such parcel of land could be put into productive use but for the primitive tradition. Also, some farmers believe in some LDCs that when fertilizer is applied the crop harvests would be of inferior quality.
- © Poor political leadership most LDCs are former colonies of the developed world. Many of them gained political freedom about the last six decades since then a sound political culture with its attendant institutions havenot been put in place. This has affected government activities in a negative way. A political class with development consciousness is yet to be well established. The political class lacks the basic ingredient of moving the societies forward.

(d)Dualism – the term dualism refers to economic and social division in an economy such as difference in the level of technology between sector and region. The question to ask is how can dualism impeded or be an obstacle to development? Underdevelopment tends to be associated with social dualism because a subsistence traditional society may not be amendable to change. But it may be misleading to regard social dualism as the root cause of underdevelopment. It would be difficult to say that development would be more rapid in the absence of a modern sector from which the existence of dualism stems. Dissimilar conditions in two sectors require different development strategies and this involve real resource costs not encountered by the developed economy. It is in this sense that the dual economy is at a comparative disadvantage. The existence of dualism not only retards the development of the backward regions but can also slow down the development of the whole economy.

Q[46] An Entrepreneur has N25,000 he deposited it into his demand deposit Account that is under the apron-string of the Central Bank of Nigeria. The financial institution is to keep 20% of all such deposits. Using a 7- model transaction how much would be generated in the process?

Banks	Amount/cash deposited	Amount/cash kept 20%	Amount/cash lent out as
			loan
Bank A	250000	5000	20000
Bank B	20000	4000	16000
Bank C	16000	3200	12800
Bank D	12800	2560	10240
Bank E	10240	2048	8192
Bank F	8192	1638.4	6553.6
Bank G	6553.6	1310.72	5242.88
Others	26214.4	5242.88	2097.52

Total 125000	25000	100000
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Q[47] Examine the limitations of money creation.

There are limitations on the part of commercial banks that impede the continuousand effective creation of money. There are:

- (a) The cash ratio or the legal reserve requirement is normally fixed by law. The Central Bank can change it at anytime depending on the kind of monetary policy that is on course. For instance, if the central bank wants to control inflation, it can increase this cash ratio and the amount of money created will be reduced.
- (b) Leakage of cash out of the banking system. If there is leakage out of the banking system, the amount of money created we be reduced. If in our example, one of the customers refuses to deposit his money in his bank but instead withdraw the money for spending, the amount of money created will not be as high as seen above
- © Excess Reserves are the extra cash hold by banks above the 20% required by law. Banks can keep excess reserves in order be able to meet their customers loan demands. In this case the amount of money that can be created will be limited.
 - (d) The cooperation of the public and the banking system- for money creation to be effective both the public and the banking system must cooperate. The public must be willing to borrow and this willingness must be backed up by adequate collateral, without which banks will not lend. Without this willingness to lend, their ability to create money will be limited.

Q[48] Discuss the methods of computing national income.

The methods of computing national income are:

- (a) Output approach- this is the value of the total of goods and services produced in a year it is calculated on value added basis in order to avoid double counting. Double counting is where the value of the final product and intermediate inputs are taken separately and this overstates the value of the final product when the intermediate inputs are subtracted from the values of the total output, the result is the value added. In other words, this method focuses on value added of all firms.
- (b) Income approach- this is the income that is received by or the record of all the factor of production for contributing to national income. Factor incomes are generated in the process of production as factor inputs. Factor incomes are rent, which is the payment for the service of land, wages and salaries, the payment for the services of land wages and salaries, the payment for the service of labour, and interest for the payment, for the service of capital and profit for the organizer of factors of production (Entrepreneur). The method excludes payments which are not rewards or connected to production like transfer payments, gift to old people and beggars.
- (c) Expenditure approach- this is the total value of all expenditure of goods and services by individuals, government and firm expenditure on intermediate inputs are not included to avoid double counting.

Q[49] Highlight on the relevance of national income statistics.

- (a) On the global economy when expressed in one single currency- the figure can be used as a unit of comparison to the standard of living of the different countries. It determines the strength and the growth prospects of the economy.
- (b) It helps to show and expresses the performance of the economy the sectors contribution over time and this can be used as base for future planning.
- (c) Companies and individual businessmen use the figure as inputs into their day to day decisions.
- (d) It helps to show whether the economy or a particular sector is growing or not.
- (e) It is a unit of assessment of each country to the United Nations and in distributing technical assistance and in an equitable manner.

Q[50] Discuss the main types of money.

The main types of money are briefly highlighted below

- (a) Commodity money- this is a commodity that is generally accepted as a medium of exchange. Commodity money does not only have value as money but also derives its value as commodity. Various commodities that have been used as money include gold, silver, cowries, leather, tobacco, elephant tusks, salt, and so on.
- (b) Coins- these are also known as metallic money. Coins are made of precious metals, gold, silver or copper. Different countries have different coins, in Nigeria, the coin being used is called kobo, Gambia, it is Bututs and in Ghana, it is pesewa. The use of coins is however gradually fading out in many countries.
- (c) Paper money- this is also called bank note, currency or token money. A token money is derived from its value by being money alone. It does not have commodity value. The use of paper money gained recognition in the seventeenth century when the goldsmith was issuing receipts in place of gold held as money. Now money is widely used in most countries and it is issued by Central Bank in the case of Nigeria.
- (d) Bank deposits- bank deposits are deposits in current account. They constitute average vital form of money. The money or part of the money is withdrawn by drawing a cheque on the bank. With bank deposits a bank is indebted to a customer who pays charges to the bank for operating the account.
- (e) Legal tender- this refers to a status given by law to make it generally acceptable. Such money enjoys the backing of the law. The legal tender in Nigeria is the naira. The coins too are legal tender but there is limit to the extent at which they are acceptable. There is a limit to coins can be accepted for payment. People may not accept a payment that total like N1,000 to be made in coins.
- (f) Electronic or plastic money- these are recent development in the banking industry. Example is credit cards, ATM cards, etc

Q[51] Write short notes on (i) supply of money (ii) demand for money.

Students should be able to explain the meaning of supply and demand for money and highlight on the issues contained in the two aspects.

(i) Supply of money implies the entire stock of money in an economy and it consists of the bank notes, coins and bank deposit. Bank note and coins are referred to as cash or currency in circulation and they are issued or supplied by the central bank which acts on behalf of the government. The total money supply in the

economy is influenced by the government. The commercial bank plays a major role in this regard they create bank deposit.

The supply of money is the total stock of money in an economy. The narrow definition M_1 is currencies in circulation (C) and demand deposits (DD) is M_1 , = C + DD. The broad definition is $M_2 = M1 + Time$ deposits.

The government through the central bank determines the amount of money in an economy by its policy measures. This is to put under check inflationary tendencies that erode away the value of the nation's currency. Currency includes all coin and paper money issued by the Central bank. The commercial bank within the limits of their reserve requirement also influences the level of money supply. The individual's is not left out in the process, if they desire to hold bigger cash, they make withdrawer from their bank accounts or if they need smaller cash, they would deposit enough cash into their accounts. On a wider note money supply is essentially influenced by the central bank, commercial banks, businessmen and consumers.

In the developed countries, bank deposit percentage is very high. This is not the case in many developing countries. The ugly development has been occasioned by elementary nature of banking as well as unimpressive attitude to cheque. The implication of this is that there will be relatively low percentage of bank deposits. The situation is however changing in some developing countries with notable development in the banking system.

(ii) Demand of money

The demand for money implies the desire to hold money in cash as against investing it in shares, bonds etc. According to Keynes, the demand for money is based on three different motives. These are:

Transaction Motive- People desire to hold money in this regard in order to meet daily transactions. Daily transaction here cover buying food, paying transport fare and so on in the case of individuals and it covers paying for factors of production, paying for maintenance, buying fuel, etc in the case of firms. This demand for money is determined by the size of income and the intervals between the times income is received.

Precautionary Motive- in this respect people desire to hold money in order to meet up with contingencies. For example, a person may like to get prepared to entertain unexpected visitor and so on. This demand for money is determined by the size of income.

Speculative Motive- the desire to hold money in this case stems from an intention to take advantage of opportunities. A person may bring goods when their prices are low and sell them later. To meet up with this, such a person will want to hold money. The demand for money in this wise is influenced by the rate of interest.

Q(52) Discuss the functions of Central Bank Nigeria in line with the macroeconomic objectives of the country.

Some of the functions the Central Bank is expected to perform in a Nigeria are:

- (a) The bank is empowered by law to issue currency. It is on this regard that money is called a legal tender because it has the backing of the law.
- (b) The central bank acts a banker to other banks, other banks bank with it just as the individual transact with commercials banks.

- © Central bank is the custodian of government account and also as the financial adviser to the government. Government revenue is paid into government account, the bank make payment on behalf of the government for public expenditure
- (d)It is the sole responsibility of the bank to promote monetary stability. This it does by using the instruments of money policy to control the activities of commercial banks.
- (e)The bank act as lender of last resort when the commercial banks have no liquid to meet the demand on the customer/depositors, they run to the central bank to make immediate withdrawer in order to meet the needs of their customers.
- (f) Central bank holds and manages the country's gold and foreign exchange reserves. In the same direction it helps in meeting the reserves requirement cost of the commercial banks, the public and as well as the government.