B.E.

Third Semester Examination, May-2009

Economics (HUM-201-E)

Note : Attempt any five questions. All questions carry equal marks.

Q. 1. Define the term economics. Discuss its relationship with science, engineering and technology.

Ans. It is difficult to give an accurate defination of economics. A test of good defination is that it delimits bourdaries of the subject clearly and correctly.

A/Adam Smith. "Economic is an enquiry into the nature and causes of wealth of nations."

A/J.B. Say. "Economics is the science which treats of wealth.

A/Walker. "Economics is the body of knowledge which crelates to wealth."

Role of Science in Economic Development : Prof. Schumpeter identified

(i) Invention (ii) Innovation (iii) Diffusion

as the main causes of economic development.

Science, through innovation stimulate the proces[illegible]ent. It is because of this that chow-En Lai the arcuited of China also realised, the necessity of science when he said, we must cat[illegible] with the advanced level of world science. Only by marketing the most advanced science, we can be ensured of a powerful and upto date, economy. Economic development is impossible in the absluce of inventions and innovations—development of new products and processes, discovery of new ideas or new ways of doing things as also actually getting the new methods adopted in effective benefit of mankind.

Role of Engineering in Ceonomic Development : Engineering, by creating machines and constructing various components of infrastructure, stimulates the process of economic development. In recent decade, advances in engineering have made industrial operations and miniaturized electronic circuits so that a computer can be placed on a semiconductor chip. The list of achievements seems almost endless. The utilization of engineering knowledge for economic development of a country is achieved through the design of things we use such as machines, structure, products and services.

Role of Technology in Economic Development : The main contribution of technology to economic development is that it enables the production of higher output with the same quantity and combinations of factor inputs. In other words, technical improvements means an increase in technical efficiency, defined as producing more with the same inputs or producing the same quantity of output with fewer inputs. Infact, technical progress was the most omportant factor in determining the rate of growth of the economy.

Mansfield has correctly remarked that, "without question technology is one of the most important determinants of economic development. Technology has improved working conditions permitted the reduction of working hours, provided all increased flow of products and added many new dimensions to an way of life."

The above discussion dearly proves that there is an intimate relation between science, engineering, technology and economic development.

We may sum up the discussion with Todaro, who says, the sources of economic development can be traced to a variety of factors but by and large, investments that improve the quality of existing physical and

human resources, increase the quantity of same productive resources and that raise the productivity of all or specific resources through invention innovation and technical progress have been and will continue to be primary factors in stimulating economic growth in any society.

Q. 2. Discuss law of diminishing marginal utility.

Ans. Law of Diminishing Marginal Utility : Law of diminishing marginal utility is the foundation store of utility analysis. All of us experience this law in our daily life.

This law is attributed to many economists of the nineteenth centaury, harelly Bentham, Gossen, Jovens & Walras. A/Jevons, this law is based on weber Fechner's Psychological law, which states that increase in the quantity of commodity, the significance of its additional units goes on diminishing.

Definations :

A/Marshall. "The additional benefit which a person derives from a given stock of a thing diminishes with every increase in the stock that he already has.

A/Chapman. "The more we have of a thing, the less we want additional increments of it or the more we want not to have additional increments of it.

Assumptions : (i) Utility can be measured in the cardinal number system.

(ii) Marginal utility of money remains constant.

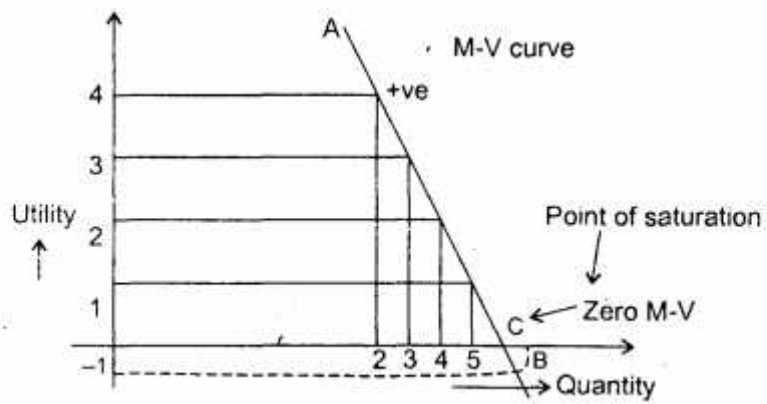
(iii) Marginal utility of every commodity is independent.

(iv) There is no change in the income of the consumer.

(v) There is no change in the price of commodity and its substitutes.

Explanation Example :

No. of Ice-cream Cups	Marginal Utility
First	4
Second	3
Third	2
Fourth	1
Fifth	0
Sixth	–1



The above table shows that first cup of ice-cream yields 4 units of marginal utility. This will satisfy your want to some extent and the intensity of want will mellow down. The second cup of ice-cream will yield less marginal utility than the first one, that is 3 units

Third cup will yield still less M.V. say 2.

It is evident from the above table that as more & more units of ice-cream are consumed, marginal utility from each successive unit goes on diminishing.

Exceptions : (i) Curious & rare things (ii) Mizers

(iii) Good book and poem (iv) Drun Kards

(v) Initial units.

Causes of Application :

(i) Commodities are imperfect substitutes.

(ii) Suitability of particular wants.

(iii) Alternative uses.

Importance of the Law : Law of diminishing marginal utility is the basis of all laws of consumption.

There are three laws of consumption :

(i) Law of marginal utility (ii) Law of demand

(iii) Concept of consumer's surplus.

After the law of equi marginal utility, a consumer does not spend all his income on one commodity. It is so because the consumer knows that if he buys more and more units of the same commodity then the marginal utility of each successive unit will go on diminishing.

Hence, to get the maximum satisfaction, the consumer spends his income in such a way that the last unit of money spent an different commodities yields equal marginal utility. The consumer will therefore buy more units only if their price also goes down.

Criticisms :

(i) Cardinal measurement of utility is not possible.

(ii) Marginal utility of money is not constant.

(iii) Every commodity is not an independent commodity.

(iv) Marginal utility cannot be estimated in all conditions.

(v) Unrealistic assumptions.

Q. 3. What is demand? Discuss the law of demand.

Ans. Meaning of Demand : Demand indicates how much quantity of a commodity will be demanded at its diffierent prices. It may be pointed out that economists distinguish between demand and quantity demanded. Demand is the quantities that buyers are willing and able to buy at alternative prices during a given period of time.

Definition : After Ferguson, "Demand refers to the quantities of a commodity that the consumers the able and willing to buy at each possible price during a given period of time, other things being equal.

Law of Demand : Definations : Law of demand has been defined by some eminent economists as under :

After **Bilas**, "The law of demand states that, other things being equal, the quantity demanded per unit of time will be greater the lower the price and smaller the higher the price.

Assumptions : Law of demand holds when "other things remain the same."

It means factors inflecting demand. other than price are assumed to be constant. These may be explained with the help of following demand function :

$$D_x = f(P_x, \overline{P_r}, \overline{Y}, \overline{T}, \overline{E})$$

(i) There should be no change in price of related goods ($\overline{P_r}$)

(ii) In income of consumer ($\overline{Y}$)

(iii) In tastes and preferences of consumer ($\overline{T}$)

(iv) In price of commodity in the near future ($\overline{E}$).

Explanation Demand Schedule : After **McConnell,** 'Demand schedule is a table that shows different prices of a good and the quantity if that good demanded at each of these prices.

It has 2 aspects :

(i) Individual demand schedule (ii) Market demand schedule

Algebric Explanation : With a view to maximising his satisfaction from a given income, the consumer speeds his income across different goods in accordance with the following equation :

$$\frac{MV_1}{P_1} = \frac{MV_2}{P_2} \ldots\ldots\ldots\ldots = \frac{MV_n}{P_n}$$

Income Effect : Income effect is the effect that a change in a person's real income caused by change in the price of a commodity has on the quantity of that commodity.

Substitution Effect : The substitution effect is the effect that a change in the relative prices of substitute goods has on the quantity demanded. Substitutes are good that can be used in places of each other.

Determination of Demand/Demand Function : Demand of a consumer for a particular commodity at any given time is determined by following factors :

(i) Price of commodity (P_x) (ii) Prices of related goods (P_r)

Q. 4. Discuss the law of variable properties.

Ans. Law of Variable Proportions : After Left witch,

The law of variable proportions, states that if the input of one resource is increased by equal increments per unit of time while the inputs of other resources are held constant, total output will increase, but beyond some point the resulting output increase will become smaller and similar.

Assumptions :

(i) One of the factors is variable while all other factors are fixed.

(ii) All units of the variable factor are homogeneous a equally efficient.

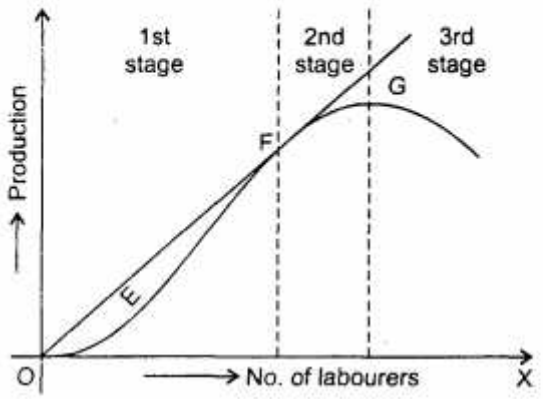
(iii) There is no change in the technical of production.

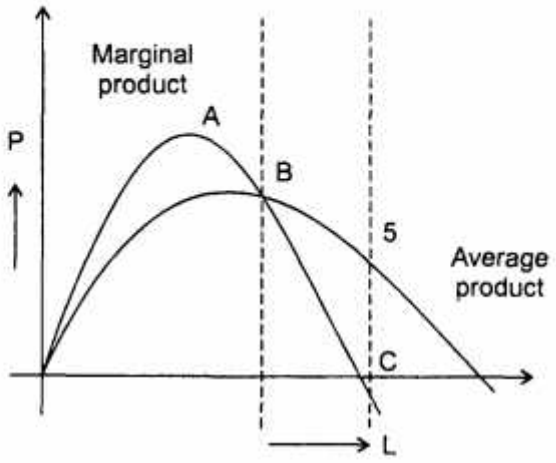
(iv) Factors of production can be used in different proportions.

Explanation : Law of variable proportions is explained with the help of table 1 and figure 1. Supposing you have a farm measuring 1 hectare and you also possess agricultural equipments, seeds, manure etc. you want to grow tomatoes. You are to decide about the number of laborers to be engaged for growing tomatoes keeping all other factors constant as tigon increase the numbers of laborers on the farm, their total, average and marginal product will change as shown in table 1.

Behaviour of Total Marginal & Average Product :

Units of law (1)	Units of Labour L (2)	Total Product $+P$ (3)	Marginal produce $MP = \frac{\Delta TP}{\Delta L}$ (4)	Average Product $AP = \frac{+P}{L}$ (5)
1	1	2	—	2
1	2	5	3	2.5
1	3	9	4	3
1	4	12	3	3
1	5	14	3	2.8
1	6	15	1	2.5
1	7	15	0	2.1
1	8	14	−1	1.7





Three Stages of Production :

Stage 1 (0-M) Boundary Line MF

Total Product TP : Initially it increases at an increasing rate upto point E later at diminishing rate from point E.

Marginal Product MP : Initially increases and reaches maximum point at A. After A begins to diminish.

Average Product AP : Increases and reaches its maximum at B.

Stage II M-N Along line NG :

TP : Continuous to increase at diminishing rate and reaches maximum at G.

MP : Continues to diminish and becomes zero at C.

AP : After reaching its maximum begins to diminish.

Stage III : Bey and N

TP : States declining.

MP : Becomes –ve.

AP : Continues to diminish but always remains greater than zero.

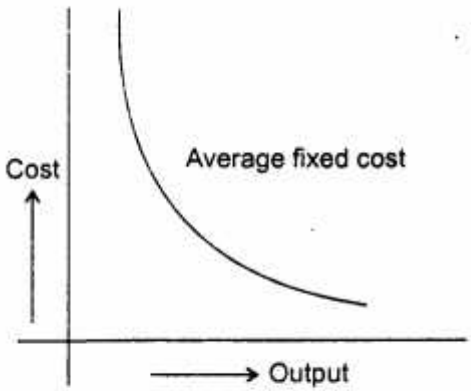
Q. 5. Define the term opportunity cost. Discuss the shape of average cost, marginal cost, total cost in short run and long run.

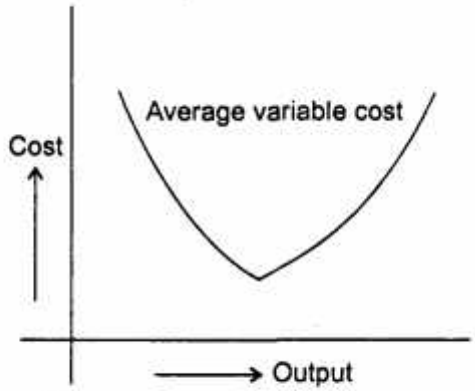
Ans. Opportuniy Cost : After Ferguson, The alternative or opportunity cost of producing one unit of commodity X is the amount of commodity Y that must be sacrificed in order to use resources to produce X rather than Y.

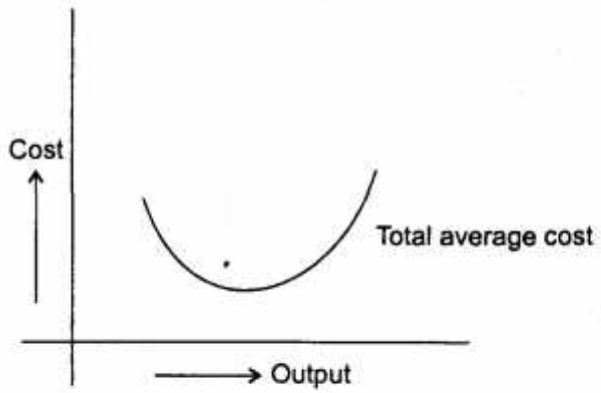
The opportunity cost in the cost of next best alternative fregone. It is also called alternative cost.

Average Cost (*AFC*) :

$$AFC = \frac{FC}{Q}$$



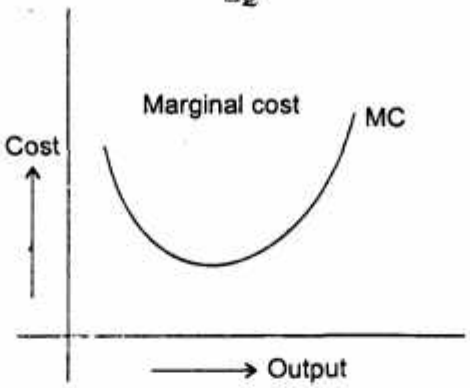




$$AVC = \frac{TVC}{Q}$$

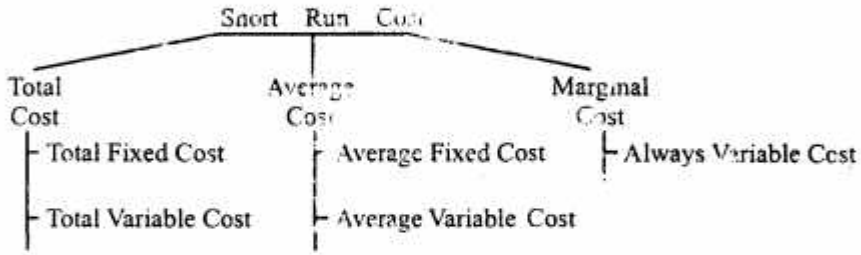
$$\therefore ATC = \frac{TC}{Q} = AFC + AVC$$

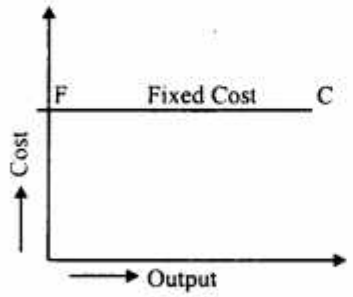
Marginal Cost : $MC = \frac{\Delta TC}{\Delta Q} = TC_n - TC_{n-1}$

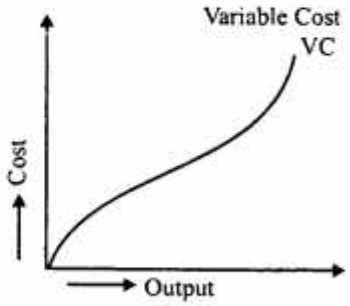


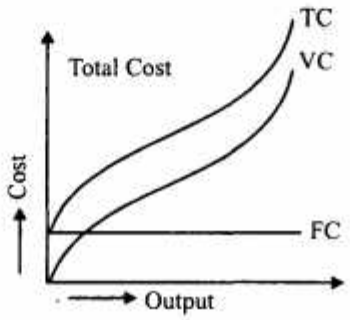
Total Cost : $TC = TFC + NC$

TFC = Units of fixed factors α price of the factor







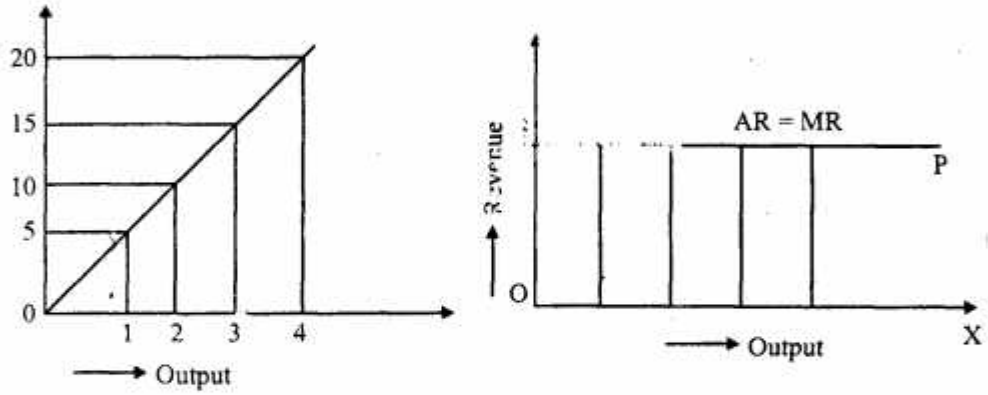


Q. 6. Discuss the price determination in the market situation of perfect competition.

Ans. Price Determination in Market Situationi of Perfect Competition :

Output/Ears Q	Total Revenue $TR = ARXQ$	Average Revenue/Price $= \frac{TR}{Q}$	Marginal Revenue $MR = TR_n - TR_{n-1}$
1	5	5	5
2	10	5	5
3	15	5	5
4	20	5	5

Revenue curves under perfect competition



Total Revenue : In table 1, we see that under perfect competition because price is fixed, total revenue increases at to constant rate.

We rate that if price is Rs 5/- total revenue of 2 units is Rs. 10 & of 3 units is Rs. 15/-

Average Revenue : Average revenue/price under perfect competition does not change with the change in output sold

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

Marginal Revenue : Table 1 indicates that under perfect competition, the firm has the same marginal revenue i.e., Rs. 5/- however much it sells

$$MR = \frac{\Delta TR}{\Delta Q}$$

ΔTR is Rs. 10/- – Rs. 5/- = Rs. 5/-

$$\Delta Q = 2 - 1 = 1$$

i.e., as and that $AR = MR$

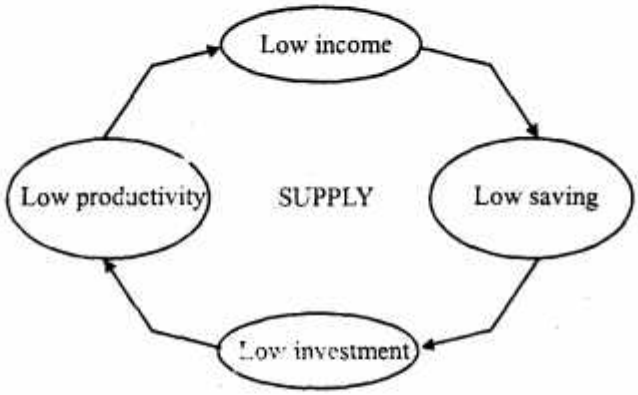
Q. 7. Discuss the nature and characteristics of Indian Economy.

Ans. Nature of Indian Economy : Indian economy is an underdeveloped economy.

Theory of underdevelopment :

(i) Theory of vicious circle of poverty.

(ii) Theory of low income level equilibrium.



Features :

Stagnant Per Capital Income : During fifty years prior to independence. (1947) growth rate of per capita income per annum has been less than 1 cent.

After independence, no doubt, as a result of planning Indian economy got a stimulus, yet the rate of increase in per capita income remained around 1.9 percent per annum.

Low Level of per Capita Income : In the words of Kurihara, " low per capita real income is the main feature of an underdeveloped economy." Per capita income of India is low as compared to many countries of the world.

Country	Per Capita Income in US Dollars Year 2005-2006
USA	43,740
Japan	38,980
UK	37,600
China	1,740
Sri Lanka	1,160
Indian	720
Pakistan	690

Low Standard of Living : On account of low per capita income, level of consumption, of such necessaries of life as food, dotting and shelter etc is very low.

Unequal Distribution of Income & Wealth : In India, on other end, per capita income is low, and on the other hand, there is a large inequality in the distribution of wealth and income.

Indian Economy is a Planned Developing Economy :

	Plan	Period
(i)	First five year plan	1951-56
(ii)	Second five year plan	1950-61
(iii)	Third five year plan	1961-66
(iv)	Fourth five year plan	1969-74
(v)	Fifth five year plan	1974-78
(vi)	Sixth five year plan	1980-85
(vii)	Seventh five year plan	1985-90
(viii)	Eight five year plan	1992-97
(ix)	Ninth five year plan	1997-2002
(x)	Tenth five year plan	2002--2007
(xi)	Eleventh five year plan	2007-2012

% Growths of National Income at Constance Prices :

Plans	% Growth in National Income
1st	3.6
2nd	4.1
3rd	2.5
4th	3.3
5th	5.0
6th	5.4
7th	5.8
8th	6.7
9th	5.5
10th	7.6
11th	9.0

Effects :

(i) Increase in employment.

(ii) Export promotion. diversification.

(iii) Moderanisation

(iv) Development in information.

(v) Development in industries

(vi) Increase in rate of capitra formation.

(vii) Increase in per capitra income.

Q. 8. What do you mean by Globalisation? Discuss its merits and demerits.

Ans. Globalisation : Globalisation simply means integrating the economy of the country with the world economy. Globalisation embodies integration of international market for goods, services, technology, finance, and labour.

Defination : After Rubens Richpero, Globalisation is the integration of the world economy as the result of three main forces :

(i) ↑ in trade of goods and services.

(ii) The increase in the investment of transactional companies and consequent change in nature of production.

(iii) International financial and exchange and rate translations.

Indications of Dimensions of Globalisation :

(i) International trade

(ii) International investment

(iii) International finance.

Causes of Globalisation :

(i) Policies of liberalisation

(ii) Technical revolution

(iii) New forms of industrial organisation

(iv) Experience of developing countries.

(v) Emergence of united states as a super power.

Merits of Globalisation :

(i) Flow of foreign capital.

(ii) Entry of multinational corporations

(iii) Increase in efficiency

(iv) Increase in knowledge

(v) Availability of modern technology & marketing

(vi) Social economic transformation

(vii) Promotes competition.

Demerits :

(i) Cut throat foreign competition

(ii) Causes economic inequality

(iii) Increase in debt burden

(iv) Adverse effect on balance of payments

(v) Increased dependence on multinational corporations

(vi) Increase in consumerism

(vii) Element of uncertainity

(viii) Interference of international institution.

Conclusion : Globalisation has been sold as sort of universal panacea. It had been argued in its favour that it would bring almost immediate prosperity and well being.

But unfortunately that it not what we have been seeing around as. If we consider what globalisation began to accelerate in last few years, what we have to conclude is that the average growth of the world economy was medioue. Globalisation is not producing the acceleration of growth worldwide as expected.