GEN. ECONOMICS – RTP - JUNE 2017 EXAM.

Chapter *1. Introduction to Micro Economics*

'Economics' - Origin -Greek word 'Oikonomia' (Household Management)

Definitions and Scope of Economics:

1) ***Science of wealth:***
Adam Smith (Father of Economics) - 1776 - Book "The Nature and causes of Wealth of Nations": "An inquiry into the nature and causes of wealth of nations."
J B Say: "Science which deals with wealth".
Demerits: i) It is too materialistic. ii) Neglect of Welfare.

2) ***Science of material well-being:***
Alfred Marshall (Neo-Classicist) "Economics is a study of mankind in the ordinary business of life, It examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of well-being"
A.C. Pigou: "The range of our inquiry becomes restricted to that part of social welfare that can be brought directly or indirectly into relation with the measuring rod of money". Marshal and Pigou have considered the ethical aspects of Economics which obviously are normative.
Demerits: i) It is also materialistic. ii) The concept of welfare is very vague.

3) ***Science of choice making:***
Prof.' Lionel Robbins - Book "Nature and Significance of Economics" (1931): "Economics is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses"
Demerits: Impersona1 and colourless (Excluding normative aspects).

4) ***Science of dynamic growth and development:***
Paul A. Samuelson: "Economics is the study of how men and society choose, with or without the use of money, to employ scarce productive resources which could have alternative uses, to produce various commodities over time and distribute them for consumption now and in the future amongst various people and groups of society".
Prof Henry Smith: "Economics, is the study of how in a civilized society one obtains the share of what other people have produced and of how the total product of society changes and is determined".
Jacob Viner: "Economics is what Economists do".

Micro and Macro-Economics: (Professor Ragner Frisch)

1) ***Micro Economics:*** Greek word 'mikros'. **Prof. Boulding** "Microeconomics is the study of particular firms, particular households, individual price; wages, income, individual industries and particular commodities". It is thus a study of a particular unit rather than all the units combined.

2) ***Macro Economics:*** Greek word 'makros'. It is the study of overall economic phenomena or the economy as a whole, rather than its individual parts. It includes: (i) national income and

output; (iii) general price level; (iii) balance of trade and payments; (iv) external value of money; (v) saving and investment; and (vi) employment and economics growth.

Nature of Economics:

1) ***Economics is a science:***
   i) It is a systematised body of knowledge which studies the relationship between cause and effect.
   ii) It is capable of measurement. (The measurement is in terms of money)
   iii) It has its own methodological apparatus. (Induction and deduction)
   iv) It has the ability to forecast. .

   However it is to be noted that Economics is not a perfect science as Economists do not have uniform opinion.

2) ***Economics is an art:*** Whereas science teaches us to know, art teaches us to do. Unlike science which is theoretical, art is practical. If we analyse Economics, we find that it has the features of an art also. It is science in its methodology and art in its application.

3) ***Positive Science:*** Positive Economics is the one that simply states facts. A positive or pure science analyses cause and effect relationship between variables, but it does not pass value judgment.

4) ***Normative Science:*** It is prescriptive in nature and describes 'what should be the things. Example: "This tax should be reduced."
   Profeasor Robbins emphasised the positive aspects of science but Marshall and Pigou have considered the ethical aspects of science which obviously are normative.

Method of Studies: There are two methods of deriving generalisations or laws:

(1) ***Deductive method*****:** Abstract; analytical and a priori method Conclusions and generalisations are drawn based on certain fundamental assumptions accepted truths.The logic proceeds from general to particular.

(2) ***Inductive Method:*** Under this method conclusions are drawn on the basis of collection and analysis of facts relevant to the inquiry. The logic in this case proceeds from the particular to general.

Central Economic Problems:

There is no economy is without scarcity.

(i) What to produce? (ii) How to produce? (iii) For whom to produce? (iv) What provision should be made for economic growth?

Production Possibility Curve: Production-possibility curve (PPC) or "transformation curve": shows production of two goods that can be produced with limited productive resources.

Increasing opportunity cost that makes the PPC concave to the origin. If opportunity costs were constant, PPC would -be a straight line. Further PPC has negative slope due to scarcity of resources. Optimum level of production is on the Curve. Point R(any point inside ppc) represents underutilisation. Point S(any point outside ppc is unattainable combination beyond the reach of the economy) is not possible due to limited resources.

Economic growth and shift in Production Possibility Curve:

When the economy makes progress in technology, that is, when scientists and engineers discover new and better ways of doing things, the production possibilities curve will shift outward and to the right showing that more of both goods can be produced than before.

How do different Economies Solve their Central Economic Problem?

Capitalist economy: Capitalism is an economic system in which all means of production are owned and controlled by private individuals for profit. (Free market or laissez-faire economy)

(1) The right of private property: Under private ownership.

(2) Freedom of enterprise: Everybody free to set up any firm to produce goods and services

(3) Freedom to choice by the consumers: Consumer sovereignty.

(4) Profit motive

(5) Competition

(6) Inequalities of income

How do capitalist economics solve their central problems?

No central planning authority to decide what, how and for whom to produce. Such an economy uses the impersonal forces of market demand and supply or the price mechanism to solve its central problems.

Deciding what to produce: 'Question regarding what to produce is ultimately decided by consumers who show their preferences by spending on the goods which they want.

Deciding how to produce: Relative prices of factors of production.

Deciding for whom to produce: For those who have the buying capacity.

Deciding about consumption, saving and investment: Savings governed by the rate of interest prevailing in the market. Higher the interest rate, higher is the savings. Investment decisions depend upon the rate of return on capital.

Merits of Capitalist economy:

1. It results in high standard of living.
2. Capitalism works automatically through price mechanism.
3. Maximum efficiency in production.
4. It rewards men of initiative and enterprise.

Demerits of Capitalism

1. Rich becomes richer and poor becomes Poorer.
2. Welfare is not protected
3. Economic instability
4. Class conflict arises between employer and employee.
5. Productive resources are misused.
6. Formation of monopolies.
7. There is no security of employment.

Socialist economy: Material means of production i.e. factories, capital, mines etc. are owned by the whole community represented by the State with the objective of Social Welfare. ["Command Economy" or a "Centrally Planned Economy"].

(i) Collective Ownership (ii) Central Planning Authority (iii) Absence of Consumer Choice

(iv) Relatively Equal Income Distribution (v) Minimum role of Price Mechanism or Market forces

Merits of Socialism:

1. Equitable distribution of wealth and income
2. Planned economy, Better utilization of resources
3. Unemployment is minimised, business fluctuation are eliminated
4. Avoids c1ass war.
5. Labourers and consumers are protected.

Demerits of Socialism:

1. Predominance of bureaucracy. There may also be corruption, redtapism, favouritism, etc.
2. It restricts the freedom of individuals
3. It will not provide necessary incentive to hard work in the form of profit.
4. State monopolies created by socialism will sometimes become uncontrollable.
5. The extreme form of socialism is not at all practicable.

The Mixed Economy: Aim is to develop a system which tries to include the best features of both the controlled economy and the market economy while excluding the demerits of both. Planning is done by the State Authority called Planning Commission.

Features of mixed economy:

(i) Co-existence of private and public sector
(ii) Existence of Economic Planning
(iii) Administered Price: In the private sector, prices of goods and factors of production are determined through the free play of market forces of demand and supply. In the public sector, the state determines the prices of various products.

Merits of Mixed, Economy

1. Merits of both capitalism and socialism while avoiding the evils of both.
2. Mixed economy protects individual freedom.
3. Price mechanism is allowed to operate under mixed economy.
4. Reducing the inequalities of wealth and class struggle is one of the aims.
5. Economic fluctuations can be avoided

Demerits of Mixed Economy

1. Mixed economy is difficult to operate.
2. Excessive controls and heavy taxes are likely to prevail under mixed economy.
3. Problems red-tapism, nepotism, favouritism, officialdom, etc.
4. Described by Schumpeter as "Capitalism in the oxygen tent'. It is only a trick of the capitalists to cheat the working class by offering them some temporary advantages like social security, upliftment of the depressed classes, etc.

Chapter 2. Theory of Demand & Supply

Meaning of Demand (Flow Concept):

Demand = Desire + Ability to buy + willingness to Pay.

What determines Demand?

(1) Price of the commodity: Inversely related,

(2) Price of related commodities: i.e. Price of
   (a) Complementary goods (E.g. Tea & Sugar) (Inverse)
   (b) Competing goods or Substitutes (E.g. Tea & Coffee) (Direct)
(3) level of income of the household: Directly related. But exceptions i.e. there are certain commodities for which quantities demanded decrease with an increase in money income. These goods are called inferior goods.
(4) Tastes & preferences of consumers
(5) Size of population: larger the size of population, greater, is the demand in general. (Direct relationship)
(6) Composition of population
(7) Distribution of income: Usually Rich population less, poor population more. Therefore demand for durable goods will be less and demand for non durable goods will be more.

Law of Demand:

Alfred Marshall: Higher the price of a commodity, the smaller is the quantity demanded and vice versa, Downward sloping demand curve from left to right. It has negative slope. [Convex (curve]

Why does demand curve slope downwards? [Why Convex]

(1) law of diminishing marginal utility
(2) **Substitution effect:** (Hicks and Allen) Example: X and Yare Substitutes. When, the price of a commodity X falls, it becomes relatively cheaper compared to commodity Y. It induces consumers to substitute the commodity, as the result the total demand for the commodity X increases.
(3) **Income effect:** As the price of the commodity falls, Consumer's purchasing power increases. This induces him to buy more of that commodity. Thus, demand for that commodity (whose price has fallen) increases.
(4) **Arrival of new consumers:** When the price of a commodity falls, number of consumers increases and hence the demand for the commodity increases.
(5) **Different uses:** If prices fall commodities can be used for varied purposes and demand for such commodities will increase Electricity

Exceptions to the law of Demand:
(1) Conspicuous goods: Articles of prestige value (Veblen effect) {Snob appeal}
(2) Giffen goods: Examples of such goods are coarse grains like bajra, low quality rice and wheat etc.
(3) Conspicuous necessities: These goods, due to their constant usage, have become necessities of life, For example, television sets, refrigerators. coolers, cooking gas etc.
(4) Future expectations about prices
(5) Speculative goods

Expansion and Contraction of Demand: (Movement along the Demand Curve] [Only due to price]

Increase and Decrease in Demand: [Shift in Demand Curve]
(It is due to change in factor other than price)
(i) A rightward shift in demand curve: (when more is demanded at same price) Example: If level of income increases, then consumer will demand more goods at same price.

(ii) A leftward shift in demand curve: (When less is demanded at same price) Example: If level of income decreases, then consumer will demand fewer goods at same price.

Elasticity of Demand:

Elasticity of demand is defined as the responsiveness of the quantity demanded of a good to changes in prices, income of the consumers, taste etc. (factors) on which demand depends.

Price Elasticity:

In symbolic terms

$$Ep = \frac{\Delta q}{q} \times \frac{p}{\Delta p} = \frac{\Delta q}{\Delta p} \times \frac{p}{q}$$

Point elasticity: [Small Change]

In point elasticity, we measure elasticity at a given point on a demand curve.

$$\frac{-dp}{dp} \times \frac{p}{q}$$

(dq = change in quantity) (dp = change in price) (p = Original price) (q = Original Quantity) (Or else information will be given to calculate derivative-

Given a straight line demand curve tT, point elasticity at any point say R can be found by using the formula.

$$\frac{RT}{Rt} = \frac{lower\ \ sigment}{upper\ \ sigment}$$

Arc- Elasticity: (Just a new method)

$$Ep = \frac{q_1 - q_2}{q_1 + q_2} \times \frac{p_1 + p_2}{p_1 - p_2}$$

Total Outlay Method of Calculating Price Elasticity:

(i) Price increase or decrease & Total Expenditure remain same, then Unit Elasticity

(ii) Price Increase & Total Expenditure increase or Price decrease-& Total expenditure decrease, then Low elasticity

(iii) Price Increase & Total Expenditure Decrease or Price decrease & Total expenditure Increase, then High elasticity.

Determinants of Price Elasticity of Demand

(1) Availability of substitutes: [S↑E↑ & Vice versa]

(2) Position of a commodity in a consumer's budget: [Share in Income ↑ E ↑ & Vice Versa

(3) Nature of need that a commodity satisfies: [If Luxury then E ↑ & if Necessities then E ↓]

(4) Number of use to which a commodity can be put: [Number of use ↑ E ↑ & Vice Versa]

(5) Time Period: [Time Period ↑ E ↑ & Vice Versa]

(6) Consumer habits: [Addiction ↑ E ↓ & Vice Versa

(7) Tied demand: Normally inelastic

(8) Price range: Goods which are in very high price range or in very low price range have inelastic demand, but those in the middle range have elastic demand.

Income Elasticity of Demand

Income e1asticity of demand is the degree of responsiveness of quantity demanded of a good to a small change in the income of consumers.

Consumer Behaviour

All Desires + Tastes + Motives = Human Wants.

Classification of wants: 1) Necessaries 2) Comforts 3) Luxuries

What is Utility? Utility is the want satisfying power of a commodity. The concept of utility is ethically neutral.

The Law of Diminishing Marginal Utility

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

Limitations of the Law: (Assumptions) (1) Homogenous units (2) Standard units of Consumption (3) Continuous Consumption (4) The Law fails in the case of prestigious goods

Extra Assumptions: (1) The Cardinal Measurability of Utility (2) Constancy of the Marginal Utility of Money

Consumer's Surplus: = What a consumer is ready to pay - What he actually pays.

Consumer Surplus = TU – T. Exp

Per Unit Consumer Surplus = MU - P

Utility = Price ready to pay

Indifference Curve Analysis: An ordinal concept.

Indifference Curves: An. indifference curve is a curve which represents all those combinations of two goods which give same satisfaction to the consumer. Since all the combinations on an indifference curve give equal satisfaction to the consumer, the consumer is indifferent among them.

[Indifference curve is a L- shaped (Right angled) curve if goods are perfect compliments] [If MRS increases shape will become - Concave]

Indifference Map

Budget line: A budget line shows all those combinations of two goods which the consumer can buy spending his given money income on the two goods at their given prices. All those combinations which are within the reach of the consumer will lie on the budget line.

It should be noted that any point outside the given price line, say H, will be beyond the reach of the consumer and any combination lying within the line, say K, shows under spending by the consumer. Therefore consumer attains Equilibrium at the point where budget line is tangent to the Indifference Curve. (I.e. point Q)

$$MRS = \frac{MU}{MU} \times \frac{P}{P}$$

Supply: 'Supply' refers to the amount of a good or service that the producers are willing and able to offer to the market at various prices during a period of time. (Flow Concept)

Determinants of Supply

(1) Price of the good [Price ↑ Supply ↑ and vice versa]

(2) Prices of related goods [Price of related goods ↑ Supply of concerned good ↓ and vice versa]

(3) Prices of factors of production

(4) State of technology [Better technology - more supply and vice versa]

(5) Government Policy [Taxes ↑ Supply ↓ & vice versa][Subsidies ↑ Supply ↑ & vice versa]

Law of Supply
Other things remaining constant, the quantity of a good produced and offered for sale will increase as the price of the good rises and decrease as the price falls.

Expansion and Contraction of Supply: [Movement along the Supply. Curve] [Only due to price]

Increase and Decrease of supply: [Shift in Supply Curve] [It is due to change in factor other than price]

Elasticity of Supply:
The elasticity of supply is defined as the responsiveness of the quantity supplied of a good to a change in its price.

$$Es = \frac{Percenatge\ chnage\ in\ quantity\ \text{sup}\ plied}{Pecentage\ \ change\ in\ \ price}$$

Point Elasticity:

$$Es = \frac{dq}{dp} \times \frac{P}{P}$$

Arc Elasiticity:

$$Es = \frac{q_1 - q_2}{q_1 + q_2} \times \frac{p_1 + p_2}{p_1 - p_2}$$

Chapter *3. Theory of Production & Cost*

Meaning of Production: Making of any material goods or providing any service is considered as production, provided it satisfies the wants of some people. Process of production is nothing but creation of form utility, place utility, time utility and personal utility.

Factors of Production:

1) ***Land:*** It does not mean soil or earth's surface alone, but refers to all free gifts of nature which would include natural resources, fertility of soil, water, air, natural vegetation etc. It is a passive factor.
2) ***Labour:*** Labour, to have an economic significance, must be one which is done with the motive of some economic reward. It implies that any work done for the sake of pleasure or love does not represent labour in Economics.
   (i) Labour is perishable (ii) The supply of labour and wage rate are directly related. It implies that, as the wage rate increases the labourer tends to increase the supply of labour by reducing the hour of leisure (iii) Labour is mobile (Active)
   Land and labour are not produced factors but are primary or original factors of production.
3) ***Capital:*** We may define capital as that part of wealth which is used' for further production i.e 'produced means of production'. Machine, tools, instruments, factories, dams, canals, transport equipment etc., are some of the examples of capital.
   Types of Capital:
   i) Fixed capital (For example tools, machines, etc.)
   ii) Circulating capital (for example stock of raw materials etc.)
   iii) Real capital refers to physical goods such as building, plant, machines, etc.

iv) Human capital refers to human skill and ability.
v) Intangible capital. For example, goodwill, patent rights, etc.
vi) Individual capital is the personal property owned by an individual or group of individuals.
vii) Social Capital is what belongs to the society as a whole in the form of roads, bridges, etc.

Capital formation: [Consumption ↓ Savings ↑ Investment ↑ Capital ↑]
Stages of capital formation: a) Savings b) Mobilisation of savings (Bank or Financial institution mobilizes savings) c) Investment (By entrepreneurial class)

4) ***Entrepreneur:*** Entrepreneur mobilises above factors, combines them in the right proportion, initiates the process of production and bears the risks involved in it.
Functions of an entrepreneur: (i) Initiating a business enterprise and resource co-ordination (ii) Risk bearing (iii) Innovations.

Production Function: [Technical relationship between input and output]
The maximum amount of output that can be produced with given quantities of inputs under a given state of technical knowledge.

Cobb-Douglas production function: $Q = KL^a C^{(1-a)}$
Where 'Q' is output, 'L' the quantity of labour and 'C' the quantity of capital. 'K' and 'a' are positive constants. The conclusion drawn from this famous statistical study is that labour contributed about $3/4^{th}$ and capital about $1/4^{th}$ of the increase in the manufacturing production

Law of variable proportions: **(Short Run Concept)**
The law states that as we increase the quantity of one input which is combined with other fixed inputs, the marginal physical productivity of the variable input must eventually decline. Total Product (TP): Total output from all the factors of production.
Average Product (AP): Output per unit of the variable factor.
Marginal Product (MP): Change in total product per unit .change in the variable factor.

Relationship between Average Product and Marginal Product:
(i) When average product rises, marginal product is more than the average product.
(ii) When average product is maximum, marginal product is equal to average product. In other words, the marginal product curve cuts the average product curve at its maximum.
(iii) When average product falls, marginal product is less than the average product.

Particulars	Short Run	Long Run
Normal Assumptions	At least 1 factor fixed	All factors can change
Law of Variable Proportions Assumptions	Only 1 factor changes	

Stage 1: **The law of Increasing Returns: (Reason)**
a) The efficiency of the fixed factors (E.g. Machine) increases as additional units of the variable factors (E.g. labour) are added to them. (Indivisibility of fixed factors)
b) As more units of the variable factors are employed, the efficiency of the variable factors itself increases due to division of labour and specialisation.

Stage 2: law of diminishing returns: This is because once the amount of variable factor is sufficient to ensure efficient utilisation of the fixed factor, any further increases in the variable factor will cause marginal and average product to decline. This stage is very important because the firm will seek to produce in its range

Stage 3: Law of negative returns: This stage is called the stage of negative returns since the marginal product of the variable factor is negative during this stage. This is due to the fact that the quantity of the variable becomes too becomes too excessive relative to the fixed factor so that they the quantity of the variable factor becomes too excessive relative to the fixed factor so that they get in each other's ways with the result that the total output falls of rising.

Stage of Operation

A rational producer will also not produce in stage 1 where the marginal product of the fixed factor is negative A rational producer will never produce in stage 3 where marginal product of the variable factor is negative. These stages are called stages of economic absurdity or economic non-sense. Thus a rational producer will always produce in stage 2.

Law of Returns to Scale: (long Run Concept) All factors of production are increased or decreased.
Increasing returns to scale: Increasing returns to scale means that output increases in a greater proportion than. The increase in inputs. When a firm expands, increasing returns to scale are obtained in the beginning. (External and Internal Economies)

Constant returns to scale: Constant returns to scale means that with the increase in output in some proportion, output increases in the same proportion.

Decreasing returns to scale: When output increases in a smaller proportion with an increase in all inputs, decreasing returns to scale are said to prevail. Eventually when the firm has expanded to a very large size, it is difficult to manage it with the same efficiency.

Production Optimisation: Helps to determine what combination of inputs would minimise its cost of production.

1) Isoquants: An isoquant represents all those combinations of inputs which are capable of producing the same level of output.

Iso-cost or Equal-cost lines: Iso-cost line represents the prices of factors. It shows various combinations of two factors which the firm can buy with given outlay.

Theory of cost

l) Accounting costs (Explicit cost) and economic costs (Explicit + Implicit cost):
Accounting costs - Cash payments
Economic' costs - In addition, it also takes into account the amount of money that could have earned if factors of production was invested in the next best alternative uses.

2) Outlay costs (Explicit) and opportunity costs (Implicit cost)

3) Direct or traceable costs and indirect or non-traceable costs:
Direct costs - Readily identified and are traceable to a particular product.
Indirect costs - Neither readily identified nor visibly traceable to specific goods.

4) Fixed and variable costs:
Fixed - Do not vary with output. (Inescapable or uncontrollable costs) (Rent)

Variable costs - Are a function of output. E.g. Wages.

Short run average cost: ***(Plant Curves)***

1) Average fixed cost (AFC): (AFC= TFC/Q) TFC remains constant, Q changes. Therefore AFC curve goes on decreasing (Downward Sloping Curve).
2) Average Variable Cost: (AVC=TVC/Q) TVC changes as Q changes. Therefore if plotted on graph AVC will first fall, then will again start increasing.
3) Average Total Cost: (ATC=TC/Q) or (AFC+AVC) As both AFC and AVC fall in the beginning, even ATC will first fall and then begins' to rise.
4) Marginal Cost: MC= ΔTC / ΔQ

Relationship between Average Cost and Marginal Cost:

(1) When average cost falls, marginal cost is less than average cost.

(2) When average cost rises, marginal cost is more than average cost.

(3) When average cost is minimum, marginal cost is equal to the average cost.

Chapter 4. Price Determination in Different Markets

***Concept of Total Revenue Average Revenue and Marginal Revenue*:**

Total Revenue: TR = P × Q
Average Revenue: AR=TR/Q or AR= P*Q/Q or AR=P
Marginal Revenue: MR=ΔTR/ΔQ or $MR_n = TR_n - TR_n$-l
Marginal Revenue, Average Revenue, Total Revenue and Price Elasticity of Demand:
(MR corresponding to the middle point of the demand curve will be zero as e = 1)

Changes in Demand & Supply: (Word change implies change in Demand or Supply for reason other than Price)

MR = AR = $\frac{e-1}{e}$, where e= Price elasticity of demand

thus e = 1 MR = ARX 1-1 / 1 = 0
e > 1, MR is (+)ve
e < 1, MR will be (-)ve

Simultaneous Changes in Demand and Supply:

a) Increase in Demand = Increase in Supply. The New Equilibrium Price = the Old Equilibrium Price. [price same but quantity increases]
b) Increase in demand > Increase in supply. Hence, the New Equilibrium Price> the Old Equilibrium Price. [Price increases and quantity also increases]
c) Increase in Supply > Increase in 'Demand. Hence, the New Equilibrium Price < The Old Equilibrium Price. [Price decreases but quantity increases]

Perfect Competition: (Vegetable market - Potato) (Myth) (Ideal)

(1) There are large numbers of buyers and sellers and no buyer or seller is in a position to influence the demand or supply in the market.
(2) The commodity dealt in it is homogeneous, i.e. identical in nature
(3) Every firm is free to enter the market or to go out of it.
(4) The commodity or the goods are sold at a uniform price throughout the market.
(5) Industry - Price Maker, Firm - Price - Taker.

Equilibrium of the Firm (Price Taker):

Conditions for equilibrium of a firm:
(i) MR = MC.
(ii) The MC curve should cut MR curve from below.

Long Run Equilibrium of the Firm: (Always Normal Profit)

Monopoly: (Curve is inelastic) Monopoly is a situation in which there is a single seller of a product which has no close substitute. Pure monopoly is never found in practice. However, in public utilities such as transport, we generally find a monopoly form of market.
(1) Single seller of the product (So Market = Individual Seller)
(2) Restrictions to Entry
(3) No close substitutes(Cross elasticity = Zero)

Equilibrium of the monopoly firm: A monopolist has to determine not only his output but also 'the price of his product. The twin conditions for equilibrium in a monopoly market are the same as discussed earlier, (i) MC = MR (ii) MC curve must cut MR curve from below.
However, one thing is certain: The monopolist will not continue if he makes losses in the long, run. He will continue to make super normal profits even .in the long run as entry of ' outside firms is blocked.

Price Discrimination: Conditions for price discrimination:
(i) Monopoly power necessary to discriminate price,
(ii) The seller should be able to divide his market into two or more sub-markets,
(iii) The price-elasticity of the product should be different in different sub-markets, The monopolist fixes a high price for his product for those buyers whose price elasticity of .demand for the product is less than one,
(iv) It should not be possible for the buyers of low-priced market to resell the product to the buyers of high-priced market.

Imperfect Competition - Monopolistic Competition: (E.g, Soaps & detergents)
Features of Monopolistic Competition: (i) Large number of sellers (ii) product differentiation (iii) Freedom of entry or exit (iv) Non-price competition

Equilibrium of a firm:
(i) MC = MR (Maximum profits or minimum losses)
(ii) MC curve must cut MR curve from below.

Oligopoly: When there are few (two to ten) sellers in a market selling homogeneous or differentiated products, oligopoly is said to exist.

Types of Oligopoly.

1. Pure oligopoly or perfect oligopoly occurs when the product is homogeneous in nature. Differentiated or imperfect oligopoly is based on product differentiation.
2. **Open and closed oligopoly:** In an open oligopoly market new firms can enter the market and compete with the existing firms. But, in closed oligopoly entry is restricted.
3. **Collusive and Competitive, oligopoly:** When few firm of the oligopolistic market come act in collusion with each other in fixing price and output, it is collusive oligopoly. When .there is an absence of such understanding among the firms and they compete with each other, it is called competitive oligopoly.
4. **Partial or full oligopoly:** Oligopoly is partial when the industry is dominated by one large firm which is considered or looked upon as the leader of the group. The dominating firm will be the price leader. In full oligopoly, the market will be conspicuous by the absence of price leadership.

Characteristics of Oligopoly Market: (1) Interdependence (2) Importance of advertising kinked demand curve: (American economist Paul A. Sweezy's Model) it is because the segment of the demand curve above the prevailing price level is highly elastic and the segment of the demand curve below the prevailing price level is inelastic.

Chapter 5: Indian Economy - A Profile

Features of an Underdeveloped Economy

1) Nearly 60 to 80 % of the population is engaged in agriculture. In India - Independence 72 %. Today, nearly 49 %.
2) Poverty is wide-spread, In India -One third of the world's poor live in India. 21.9% of population in India is poor.
3) Population grows at about more than 2 % per annum.
4) The standard of living of people is generally low, India's Per Capita Income (PCI) = $1499 in 2013.
5) Saving and capital formation rate is low.
   In India, Gross Domestic Savings Rate = 30.1%. Gross Domestic Capital Formation = 34.8 %.
6) The incidence of unemployment and underemployment is quite high.
   In India - Unemployment rate = 5.6 % (Given by NSSO) (National Sample Survey Organisation)
7) The level of human well-being is generally low. It is measured by (HDI) developed by (UNDP) (Composite 'of three basic indicators of human development -longevity, knowledge and standard of living). India's relative global ranking on this index has remained at a low of 136 among 187 countries. Further HOI improved to 0.554 in 2012 (Higher HOI is better) (But China, Srilanka ,Thailand have better HDI)
8) Income inequalities are widespread.

In order to measure the Inequality of income and wealth, Gini Index is .used.
If Gini lndex = 0 = Perfect Equality. If Gini Index = 1 = Perfect inequality.
In India, Gini index = 0.334. (But it is better than South Africa, Brazil, Thailand, China & even USA)
We may rush to the conclusion that Indian economy is an underdeveloped economy. But that is not completely true.

India-A Developing Economy:

(1) **Rise in National income:** NNP increase to ` 50,00,000 cr in 2013-14 (18 times since 1950-51).

(2) **Rise in Per Capita Income:** Per capita income rose to Rs.39904 in 2013-14. (4.5 times since 1950-51)

(3) Significant changes in occupational distribution of population:

Table 1: Occupation Distribution or working population in India:

Occupation	Latest (2011-12)
Primary Sector	48.9%
Secondary Sector	24.3%
Tertiary Sector	26.9%

Table 2: Composition of GDP

Area	Latest (2013-14)
Agriculture	13.9%
Industry	26.1%
Service	59.9%

(4) Development of strong industrial base: E.g. Iron & .steel, Machine tools, etc.

(5) **Improvements in social overhead capital:**

- ✓ Indian railways covers more than 65,000 kilometers. Indian railways is world's fourth largest rail network.
- ✓ The Indian road network has become one of the largest networks in the world aggregating 4.86 million kilometers.
- ✓ In 2011-12, the installed electricity generating capacity was about more than 2,43,000 MW
- ✓ Similarly, irrigation facilities have increased to 63 million-hectares in 2012-13. Currently, 45 percent of the net cropped area is irrigated.
- ✓ Number of primary educational institutions has nearly quadrupled; the numbers of middle/senior basic schools and higher secondary educational institutions have increased by around 23 times. There are now around 35,000 colleges and 642 universities. The literacy rate has increased to 73 per cent in 2011.
- ✓ The number of doctors has increased to about 9 lakh in 2012. The bed-population ratio is now 1.03 per 1,000 population.

Role of Different Sectors in India:

(1) Agriculture:

(i) Provides employment: Around 49 percent

(ii) Share in national income: Around 14 per cent

(iii) Supports industries. (E.g. Textiles, sugar, tea, paper)

(iv) Share in foreign trade: Cotton textiles, jute and tea earlier. Now Agricultural exports = 12% of the national exports. Agro-imports = 3 % of national imports.

(v) Supplier of food and fodder

(vi) Savings of capital: It requires lesser capital per unit of output compared to industries.

(vii) Solving problems of urban congestion and brain drain

Growth of agriculture during planning period:

1) Increase in production and productivity: In last 6 decades, 4 times. Food grains production has increased to about 265 million tonnes. The per capita availability of foodgrains has improved to 511 gm. [High Yielding Programmes (HYVP)] [Green Revolution – 1966 – Also known as Wheat Revaluation] This program was launch only on 5 crops i.e. Rice, Wheat, Bajra, Maize, Jowar.
2) Improved Agrarian system
3) Other Developments
   a) Famers have been getting material inputs at subsidized rates.
   b) Farmers have been getting materials at subsidized rates.
   c) Government is helping them in procuring their products at predetermined rates and marketing them.
   d) Minimum wage levels have been fixed for agricultural labourers.
   e) Special programmes such as Swarnjayanti Gram Swarojgar Yojana (SGSY) and Mahatma Gandhi National Rural Employment Scheme (MGNREGS) etc;, are in place in rural areas to provide employment to the rural people.
   f) The National Food Security Mission: (NFSM) was launched in 2007-08 (Aim-self sufficiency)
   g) To enhance food security and to make Indian agriculture more resilient to climate change, National Mission for Sustainable Agriculture (NMSA) was launched in 2011-12,
   h) During 11^{th} plan a growth of 3% was achieved as against target of 4%. In 12th plan target of 4% has been setup.

Problems of agricultural sector in India:

(1) **Slow and uneven growth:** India has the largest area under rice and wheat in the world and is the second largest producer of these crops, but in term" of productivity its world rank is 52^{nd} in rice and 38^{th} in wheat.
(2) **Not so modern agriculture:** The HYVP was initiated on just 44 percent of the gross cropped area. Only45 per cent of the gross cropped area has irrigation facilities. The current level of farm mechanization at 25 percent is very low as compared to about 90 percent in developed countries.
(3) **Flaws in Land reforms**
(4) **Problems relating to finance:** Share of moneylenders has reduced to about 27 %.
(5) **Problems relating to warehousing and marketing:** As a result 10 - 15 % of-agriculture produce gets spoiled or eaten by rats.

2) Role of Industry in India:

1) Modernizing agriculture 2) Providing employment 3) Share in the GDP 4) Contribution to exports (more than $2/3^{rd}$ of the export) 5) Raising incomes of the people 6) Enhancing further the economic growth

Types of industries:

On the basis of end-use: (a) Basic goods industries (like minerals, fertilizers, cement, iron and-steel, electricity etc.) (b) Capital goods industries (like machinery, machine tools, rail. road equipment's etc.) (c) Intermediate goods (like chemicals, rubber, plastic, coal and petroleum products) (d) Consumer goods - consumer durables and non durables (like beverages, watches, cosmetics, perfumes etc.).

Pattern of Industrial Development since planning period i.e. 1951:

(1) The Tenth Plan (2002-2007) aimed at achieving a growth rate of 10 % in the industrial sector but the growth of around 8.7 % p.a. was only achieved.

(2) The Eleventh Plan aimed at 10% p.a. growth in the industrial sector but industry grew at a rate of about 7.4% p.a.

(3) The programme of industrialization was started on a massive scale in the Second Plan (1956-61) based on the Mahalanob is model. This Plan emphasized on building basic and capital goods industries. Three Steel Plants were set up in the public sector at Bhilai, Rourkela and Durgapur.

(4) Micro Enterprise – Investment up to 25 lakhs, Small Enterprise – From 25 lakhs to 5crs, Medium Enterprise – From 5 crs to 10 crs of Manufacturing Sector. For Sector - < 10L, 10L-2cr, 2cr – 5cr

(5) The growth rate of small-scale sector is more than 10% p.a.

(6) The number of small-scale units is around 45 million MSMEs.

(7) The MSME sector employed nearly 100 million persons.

(8) It is estimated that smalls scale sector contributes over 40 per cent of the total export.

(9) Employment generated by the small scale sector per ` 1 lakh investment was 1.39. Employment generated on investment of Rs.10 lakh was 21 persons in small scale sector and 2 persons in large scale sector.

(10) Industry Targets - Growth of 12-14%. target share in GDP-25%

Problems of Industrial Development in India:

(1) Poor performance of public sector: The net loss of the loss making enterprises (79 in number) stood at ` 28,000 crore in 2012-13

(2) Regional imbalances: Large scale industries are concentrated in a very few states like Tamil Nadu, Maharashtra, Andhra Pradesh and Gujarat. These four States account for 50% of total factories and 50% of productive capital.

(3) Industrial sickness: There were 2.5 lakh sick units out of which more than 90 percent were small units.

3) Role of service sector in India:

(1) Increasing share in the GDP (2) Providing employment (27% of population)
(3) Contribution to Exports: Services account for over 1/3rd of total exports.

Growth of service sector during planning period:

The Eleventh Plan aims at a growth rate of 9.4 % p.a. but the actual growth rate of the service sector has been a little less than 10 per cent per annum. For the Twelfth plan, a target of 9 per cent per annum growth rate has been kept in the Draft plan.

National Income in India:

National income is the money value of all the final goods and services produced by a country during a period of one year.

Basic Concepts of National Income and Output:

(1) **Gross Domestic Product (GDP):** Gross domestic product is the money value of all final goods and services produced in the domestic territory of a country during an accounting year.

(2) **GDP at Current Prices:** If the domestic product is estimated on the basis is of the prevailing prices it is called gross domestic product at current prices.

(3) **GDP at Factor Cost and GDP at Market Price:** $GDP_{f.c} = GDP_{M.P.}$ - IT + S. (Where IT = Indirect Taxes, S = Subsidies) (-IT+S = Net Indirect Taxes)

(4) **Net Domestic Product:** NDP = GDP - depreciation

(5) **Gross National Product (GNP):** in order to estimate the gross national product of India we have to add net factor income from abroad. In brief GNP = GOP + NFIA (where NFIA is the net factor income from abroad).

(6) **Net National Product (NNP):** NNP = NDP + NFIA

(7) **NNP at factor cost or National Income:** NNP figure is available at market prices we will subtract indirect taxes and add subsidies to the figure to get NNP at factor cost or national income of the economy.

Methods of Measuring National Income:

(i) **Value Added Method:** Value added method measures the contribution of each producing enterprise in the domestic territory of the country.

Care should be taken to include the value of the following items:

(a) Own account production of fixed assets by government, enterprises and households.

(b) Production for self-consumption.

(c) Imputed rent of owner occupied houses.

Care should also be taken not to include sale of second-hand machines because they were counted as a part of production in the year in which they were produced.

GDPmp = (VO – IC)ps + (VO – IC)ss +(VO – IC)ts

(ii) **Income Method:** Aggregate of factor incomes of all the factors of production of all the producing units form the subject matter of calculation of national income by income method. Only incomes earned by owners of primary factors of production are included in national income. Transfer incomes are excluded from national income. Thus, while wages of laborers will be included, pensions of retired workers will be excluded from national income. Similarly, illegal incomes, windfall gains, death duties, gift tax, interest on unproductive national debt and sale proceeds of second-hand goods are not included while calculating national income.

NDPfc = Rent + Wages + Interest + Profit

(iii) **Expenditure Method:**

(a) Net domestic expenditure = Consumption expenditure + net domestic investment.

(b) Net national expenditure = Consumption expenditure + net domestic investment + net "foreign investment.

(c) Gross national expenditure = Consumption expenditure + net domestic investment + net foreign investment + replacement expenditure (depreciation)

GDPmp= C +G+I+NX (X-M)

4. **Understanding of Tax System in India:** Taxes which are not shifted are direct taxes. Taxes, the burden of which is shifted are indirect taxes.

Direct Taxes: (Central Govt.) (Progressive in Nature)

Income Tax: Personal income tax is levied on the income of Individuals, Hindu Undivided 'Families', unregistered firms and other association of people. They are taxed at slab rate after giving certain exemptions. Earlier income tax was as high as 97.75 % for the highest income slab. At present, tax for the highest slab is 30 %.

Indian Company -> 30%, Partnership -> 30%, Foreign company ->40%

Wealth Tax: Abolished

Gift tax: Income tax on gifts (received without adequate consideration) was partially reintroduced in April 2005, under the income tax under the head IFOS -> Income from other source if it exceeds ` 50,000/- .

Merits of Direct Taxes

(i) They are imposed according to the ability of the person to pay. (Progressive)
(ii) They best serve the purpose of transference of income from the rich to the poor.

Demerits of Direct Taxes

(i) It is also sometimes said that direct taxes are taxes on the honesty of the person.
(ii) Necessitate proper maintenance of accounts.
(iii) The assessment procedure is also cumbersome.

Indirect Taxes: (Differentials in Nature)

Custom Duties: Custom duties are levied on exports and imports as a percentage of the price of the commodity successively custom duty has been reduced to 10 %. (Central Govt.)

Excise Duties: An excise duty is levied on production. Mostly it is levied by the Central Govt, however states levy excise duty on alcohol, drugs etc. Further Central Value-Added Tax [CENVAT] was introduced in 2000-01.

Sales Tax: Being replaced by Value Added Tax in all states. Central sales tax is inter-state sales tax which is being phased out in stages. At present central sales tax is per cent.

VAT: A major benefit of VAT over sales tax is that the VAT avoids double taxation. VAT was introduced in 1999 and was implemented in April, 2005 in some states.

Service Tax: Service tax is a form of indirect tax imposed on services. Introduced in the year 1994- 95, service tax network has expanded to cover almost all services except a negative list of services.

Merits of Indirect Taxes

(i) The most important merit is convenience in assessment & a relative difficulty in evasion.
(ii) Indirect taxes on drinks, tobacco, etc. serve a social purpose.

Demerits of Indirect Taxes

(i) Regressive character. (More burden on poor than rich)
(ii) The consumers have to bear the ultimate burden of indirect taxes.

Features of Tax Structure in India:

(1) Tax revenues = 17 % of National Income of India.
(2) Tax revenue> ` 17,18,000 Crores in 2012-13
(3) Share of direct taxes in the gross tax revenue was 38.5% in 2012-13. (Balance Indirect Tax)

(4) Less than 3 % of the population pays income tax in India.
(5) The total tax revenue is highly insufficient to meet the expenditure requirements.
(6) In 2012-13, the most important contributor to tax revenue is corporation tax (34.4 per cent) followed by personal income-tax (19 per cent) excise duties (17 per cent), custom duties (16 per cent) and service tax (12.8 per cent).
(7) The agriculture income is mostly exempt from the income-tax.
(8) It is also noticed that the cost of tax collection for the Income Tax Department is one of the lowest in the world at the rate of less than 60 paise for every Rs. 100.collectedas a direct tax.
(9) It has been estimated that black money (tax not paid) is generated at the rate of 50 % of GDP.
(10) Direct taxes (centre and states combined) is 7 per cent of GDP in 2012.13.
(11) GST would replace most indirect taxes currently in place thus avoiding multiple layers of taxation that currently exist in India.

Extra

1) Year of Great Divide - 1921,
2) Indian Council of Agriculture Research and Development was established in 1929
3) State with highest number of schedule caste people and highest mortality rate - UP
4) Banking and financial sector:
   1975 – Government Established Regional Rural Banks (RRBs)
   1982 – National Bank for Agriculture and Rural Development (NABARD)
5) TRYSEM (Training of Rural Youth for Self-Employment) is a programme of Rural Development.
6) Food Corporation of India, - Provides food storage facility.
7) Green Revolution = Wheat Revolution.
8) Chairman of Planning Commission – Prime Minister.
9) National Nutrition Policy, 1993 - Goal of Annual production of 250 million tones.
10) Share of service sector in world output is 3.3%.
11) BPO- Business Process Outsourcing.
12) India has 3rd largest scientific & technical man power in world.
13) AGMARK - Related to agriculture produce.
14) ICAR (Indian Council of agriculture Research).

Chapter 6 - Select Aspects of Indian Economy

I. Population: It means total number of people residing in India.

Demographic Trends in India

1) **Size of population:** Population in 1901 = 23.84 crores. Population in 2011 = 121.02 crores. Growth rate= 1.64% (2001-2011). UP + Maharashtra population is more than USA population. Highest growth rate -> Bihar; Lowest growth rate -> Kerala
Highest total population = UP, followed by Maharashtra.
In respect of size of population, India Ranks 2nd in the world after China.
Annual Addition to India's population is equal to Australia's Population
India has about -2.4% of world's area, but less than 1.2% of world's income but accommodates about 17.5% of world's population. i.e. every 6th person in world is an Indian. 1921 is year of 'Great Divide' since then population increased @ 2%p.a. The slow or negative growth during 1901-21 was due to rapid and frequent occurrence of epidemics like cholera, plague, influenza and famines.
2) **Birth Rate and Death Rate:** Birth rate is no. of births/thousand.
2012 =21.6; Highest in Bihar (27.7)/1000; Lowest in Kerala (14.9)/1000
Death Rate is no. of deaths/thousand (It has been decreasing).
2012 =7.0; Highest in Orissa(8.5); Lowest in West Bengal & Maharashtra (6.3)
3) **Density of population:** It means no. of persons per square km.
In 2011= 382 Most densely populated state is Bihar (1102), followed by West Bengal (880) if States + Union territories are considered, Then Delhi = 11297, And Chandigarh = 9252 Lowest density in Arunachal Pradesh= 17.
4) **Sex Ratio:** No. of females per 1000 males. In 2011: 943:1000 (overall) 946:1000 (rural) 900:1000 (Urban); 1084:1000(Kerala); 879:1000 (Haryana)
5) **Life expectancy:** (It has improved over years)
In 2011: Male- 64.6; Female- 67.7; Overall- 66.1; Kerala -71.4 (highest); M.P - 58 (lowest)
6) **Literacy Ratio:** No. of literate as a % of total population.
in 2011, Male=82.1; Female=65.5; Overall = 4; Kerala = 92% (highest); Bihar = 53% (lowest)
Goa = 82% (After Kerala 2nd Highest); Himachal Pradesh - 76%, Maharashtra = 75% .

Stages of Population explosion:
1st Stage High BR & DR; 2nd Stage – High BR & Low DR (India); 3rd Stage- Low BR & Low DR.

Unproductive Consumer: In India, around 63 per cent of the population is in the age group 15-64 and 37 per cent of the population is under 15 or above 64. That means about 37 percent of the population is dependent on 63 per cent of the population or we say that the dependency rate is more than 57 per cent. Therefore, there is a load on contributing factor.

Government measures for solving population problem:
1952-Family planning program.
1966-Full fledge FP department was created

1976-FPP was converted into family welfare program.
2000-National population policy.
Maternal Mortality Rate (MMR) = No. of maternal deaths/1,00,000 live births.
As of now: (178 per 1,00,000) (i.e. 1.78 per 1000).
Infant M.R. = No. of babies dying before the age of 1yr/1000 live birth.
IMR is highest in M.P (62); and Lowest in Kerala (13); IMR → 42 (Overall).

II. Poverty: Poverty is defined as a situation where an individual in a country is unable to earn sufficient income to purchase the bare minimum means of subsistence. In India, poverty is wide spread. 21.9% per cent of the population is below the poverty-line. (Rural - 25.7%, Urban - 13.7)

Absolute Poverty	Relative Poverty
It is not related to income or consumption expenditure distribution. It relates to low standard of living.	It is related to income or consumption expenditure distribution of one person compared with other.
For less developed economy	For developed economy
Can be removed	Difficult to remove
In India, we have this concept	Gini - Co efficient is used for measuring this.

As per planning commission, a person is said to be below poverty line if his daily consumption of calories is less than: 2400 in rural areas; 2100 in urban areas It has estimated the poverty lines at all India level as an monthly per capita expenditure (MPCE) of RS 816 for rural area and Rs 1000 for urban areas in 2011-12. India has a poverty index of 0.283 with a rank of 119 among 169 countries.

Following measures are taken by Govt. to decrease Poverty:

1. Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)- (4.78 cr household have been benefited by it) (Atleast.100 days. of employment)
2. Swaran Jayanti Gram Swarozgar Yojana (SGSY): Now has been renamed as Aajeevika.
3. Swarna Jayanti Shahari Rozgar Yojana (SJSRY) = Nehru Rozgar yojana + Urban Basic Service Programmes + PM's Integrated Urban Poverty Education program. A total of about 8,00,000 beneficiaries have been assisted in 2013-14.

Poverty Estimates: It uses two types of recall periods - uniform recall period (URP) and mixed recall period (MRP).while the URP uses day recall/ reference period for all items of consumption, MRP uses 365 day recall/reference period for five infrequently purchased non-food items namely, clothing, footwear, durable goods, education, and, institutional medical expenses.

Extra:

1) Pradhan Mantri Gram Sadak Yojana (PMGSY) – Road development
2) Indira Awas Yojana (IAY) – construction of Houses.
3) Swaran Jayanti Gram Swarozgar Yojana(SJSY) – Rural development.
4) IRDP (Integrated Rural Development Program) Started in 5th Year plan & was merged with swaran jayanti Gram Swarozgar (SGSY) plan.
5) NFFWP-National Food For Work Program was launched in Nov, 2005.
6) EAS - Employment Assurance Scheme

III. ***Unemployment:*** Unemployment rate in India in 2013 is 8.8%
In India, the problem of unemployment has become serious as around 6.6% (2009-10) (CDS) of the labour force is unemployed. (5.6% in 2011-12)

	Capacity	Willingness	Jobs Available
Voluntary	Yes	No	Yes
Involuntary	Yes	Yes	No

Types of Unemployment

1) **Frictional Unemployment:** Temporary due to strikes or lockout. (Due to changing jobs) It is due to imperfect mobility of labour.
2) **Casual Unemployment:** Workers are employed on day to day basis.
3) **Seasonal Unemployment:** Employment only for a certain period.
4) **Structural Unemployment:** Changes in Infrastructure or Decrease in demand and so disinvestment and hence decrease in labour. Maximum in India.
5) **Cyclical:** Depression phase due to decrease in demand. It can be removed by fall easy money policy i.e. increase supply of money and' intern the demand (2^{nd} most maximum in India) (Short term).
6) **Chronic:** long term. (Underdeveloped Country).
7) **Disguised:** Zero marginal productivity of some workers. It also implies underemployment of labour usually found in Agriculture sector. $1/3^{rd}$ of work force is disguisedly unemployed in India.
8) **Technological Unemployment:** Increase in machines, so decrease in labour Measurement of Unemployment:

Measurement of Unemployment:

1. **Usual Status:** No. of persons who may said to be chronically unemployed. (Usually less)
2. Current weekly Status- Ref period = 1 week, A person is said to be employed for a week even if he is employed only for a day during that week.
3. **Current daily status:** Ref period= a day, Said to be employed even if worked for half day.
Unemployment rate - CDS > CWS > US i.e. 5.6 > 3.7 > 2.3.

IV. ***Infrastructural Challenges:-*** Energy India 6^{th} largest energy producer in world = 3% of world's total energy produced.
4 largest energy consumer after China, USA & Russia. Consumption = S% of world's total energy consumption. India's per capita energy consumption is one of the lowest in the world. In India 22% of energy consumed is obtained from traditional sources / noncommercial sources (water, sun, wind). Till date 14% of villages are not electrified.

Users of Electricity

Industry 37%, Domestic 25%, 21% agricultural, 10% Commercial establishment, 8% others:.
Difficulties and Problems relating to energy:

1. Demand and Supply imbalances
2. **Growing oil imports bill:** Petroleum, oil and lubricants (POL) constitute around 37 per cent of our import bill.
3. Major problem by Power Cos are Transmission & Distribution, Loss = 20%
4. Sick SEBs

5. **Operational inefficiency:** PLF during 2013-14 declined to 65 percent
   It is lowest in Eastern region (62 per cent in 2012-13) and highest in Southern region (81 per cent in 2012-13). If we consider SEBs, central and Pvt. Sector we find that PLF was 65% in SEBs, 79 percent in central sector and 79.5 per cent in the private sector in 2012-13.
6. **Inadequate electrification:** Till date, nearly 19% of villages are not electrified.

Recent steps taker to meet the above problem:

(1) Electricity Act was passed in 2003, and Electricity Amendment Bills 2005 was passed in 2005.

(2) So as to provide electricity access to all villages, Rajiv Gandhi Gramin Vidutikaran Program was launched. Free electricity was provided to below poverty line people. Under the scheme more than 1,00,000 villages have been electrified and connections to more than 200 lakh BPL households have been released.

Transportation

1) **Indian Railways:** Fourth largest in world;
   From Railways, revenue structure is Freight - 70%, Passenger. 30%.
   Total route length of railways= 65400kms (21000 km electrified)
2) **Road (Loss making corporation):** One of the largest Road network of 4.86 million kms. National Highway (NH) = < 2% of total length of roads (92,851 kms) and carries > 40% of total traffic. Rural roads connect 65% of all roads.
   Roads (carry): 65% freight & 80% passenger traffic.
3) **Water transport:** India has 14500 km of navigable waterways (rivers, canals, creeks etc)
   A long coastline of 7517 km, 12 major ports, 200 minor ports. Almost 95 per cent of India's global merchandise trade is carried through the sea route. The fleet at the end of March 2013 was 1186 vessels (1 per cent of world fleet). Kandla- top traffic handler in last 5 years.
4) **Air Transport:** There are 10 scheduled passenger operators (three in public sector and seven in private sector) and three cargo operators in the country with the combined fleet size of 413 aircrafts. Indian Airlines and Air India were amalgamated. Private sector is playing a crucial role. (Total Share 82%.of Private players): Airport Authority of India (AAI) is the main organization managing 125 airports across the country.

Domestic passenger traffic handled at Indian airports reached 122 million during 2013-14

- India' is a 2nd largest civil aviation market.
- FDI up to 100% is allowed in green field airport.
- Up to 49% FDI is allowed in domestic carriers
- NRI can invest up to 100%
- There are 10 passenger operator & 3 cargo operators.

Airport Economic Regulatory Authority (AERA)
Civil Aviation Economic Advisory Council (CAEAC)
GEO augmented Navigation (GAGAN)

Communication

Postal service (Year – 1837): Largest network in the world; 1.55 lakh post offices, out of which 90% are in rural areas; IPO serves 7175 person & 21.21 sq km area; More than 14000 PO are computerized. Department of Pots launched a pilot project "Project Arrow" with the aim of providing fast and reliable postal services to the consumers.

Telecommunication = Telephone & telex service:
March 2014 more than 935million connection. Target 1200 millions. 98% of villages are covered by Village Public Telephone. (VPT). 2nd largest in world. (After China). Tele density (number of phones per 100 persons) of 75.23 percent. While tele density in rural areas is 44 percent, the urban Tele density shot up to 145 percent in March, 2014. TRAI (Telecom Regularity Authority of India) & NIXI (National Internet Exchange of India) are regulatory authority foreign Direct Investment ceiling has been raised to 100 percent from 74 percent earlier. National Telecom Policy (NTP) was announced in 2012. The internet connections increased to around 165 million in March 2013 and broadband subscribers have increased to about 15 million in March, 2013.

Health: NRHM= National Rural Health Mission was started in 2005. National Urban Health Mission (NUHM); ASHA's= Accredited social Health Activists; Janani Suraksha Yojana (JSY):
Janani Shishu Suraksha Karyakaram (JSSK); Universal Health Coverage (UHC)

Stats: (2012): Health centres- 1,77,248; Dispensary + Hospitals - 63,002; Beds- 11, 75,374; Nursing personnel- 18,94,968 (2010); Doctors- (Modern) 8,83,812

Educations:- India has one the largest education system in the world. 84% of rural habitation in India have a primary school within a distance, of 1 km, National Policy of Expenditure (NPE) was made to set a goal of expenditure of 6% on GDP on education. Actual expenditure was 3.3%, Right of children to. free & Compulsory Education Act (RTE ACT) has made free education for all children between 6-14yrs. NLM(National Literacy Mission) aimed to literate people in the age group of 15-35 yrs. Sarva Shiksha Abhiyan, (SSA) launched in 2001-02. National Programme for Education of Girls at Elementary Level (NPEGEL) is an important component, of SSA, Another important component of SSA is, the Education Guarantee Scheme and Alternative and Innovative Education ,(EGS + AIE). Apart from the above, Mid-day meal scheme, Kasturba Gandhi Balika Vidyalaya (KGBV), Parambhik Shiksha Kosh (PSK) are other schemes for encouraging people for elementary education. Rashtriya Madhyamik Shiksha Abhiyan (RMSA). National Scheme of Incentive to girls for Secondary Education (NSIGSE) and Inclusive Education for the Disabled at the Secondary Stage (IEDSS).
In the Eleventh Plan, although 74 per cent literacy rate has been achieved

V. *Inflation*

It means upward movement in general price level. It results in decline in purchasing power. Inflation means an average, there is a rise of 5% p.a. at least in the price of goods.

Types of Inflation:

1) Demand-pull inflation: When demand for goods are more than its supply their price rises, It is a situation when more money chases relatively less quantity of goods.
2) Cost-push Inflation: Price rise due to increased cost of production (Difficult to control).
3) Stagflation: Combination of demand pull inflation + cost push inflation.
4) Deflation is a state when price are falling & so the purchasing power of money is increasing. Therefore Deflation is the opposite of Inflation.

In India, the variation in prices are measured in terms of Wholesale Price Index (WPI). This basket comprises 676 items which carry different weights. A consumer price index (CPI) measures changes in the price level of consumer goods and services purchased by households. In 2013-14, WPI was @ 6%. CPI was around 9%.

Causes of Inflation:

1) **Expenditure:** This Increase the purchasing power of employee.
   Therefore, Demand Increases and so inflation increases.
2) **Deficit Financing:** Indian finances its debt by borrowing of loans or by printing of more currency. Therefore there is more money in market and so demand increase and also there is an increase in inflation.
3) **Erratic agricultural growth:** Because of poor growth during scarcity the price increases and hence' inflation increases.
4) **Upward revision of administered prices:** Prices of few goods are kept by govt. and goods are produced in public sector. Govt. keeps on raising prices 50 as to cover loss in public sector, So price increases.
5) **Inadequate rise in industrial production:** Since production decrease, demand increases and so price also increases.
6) **Agricultural price policy of the Government:** This ensures certain minimum price to the farmers. This policy benefited farmers in India but this has been a major contributory factor to the inflationary price rise in the country.
   Maximum Inflation Rate = 14.4% in 1966- 67.
   In 2013-14, Inflation is @ 6% after averaging around 8.6% in previous 3 years .
   According to new series, Consumer Price Index remained sticky at around 9-10 percent owing to higher inflation during last couple of years. (2013-2014)
   For the year 2013-14, whereas the average WPI was 5.98 per cent, the average CPI for Industrial Workers was 9.68 per cent.

VI. Budget & Fiscal Deficits

The Government of India, every year prepares budget which shows the expected receipts and expenditures of the government in the coming financial year.

If receipts are equal to expenditure, the budget is said to be balanced one.

If receipts are higher than the expenditure, the budget is said to be surplus one and

If receipts are lower than the expenditure, the budget is said to be deficit one.

If borrowings and other liabilities are added to the budget deficit, we get fiscal deficit.

To restore fiscal discipline, the Fiscal Responsibility and Budget Management (FRBM) Bill was introduced in 2000 and FRBM Act was passed in 2003. The Act aims at reducing gross fiscal deficit by 0.5 per cent of the GDP in each financial year. Fiscal deficit fell down to 4.5% of GDP in 2013-14 against 5.7 % in 2011-12,

VII. Balance of Payments:

It is a systematic record of all economic transactions between the residents of one country and the residents of the rest of the world in a year.

Balance of Trade: If Export = Import, then BOT Equilibrium, If Export> Import, then BOT Surplus, If Export < Import; then BOT Deficit.

Balance of Payments: Overall balance of payments is the sum of balance of current account and balance of capital account.

Balance of Current Account: It includes balance of services and balance of unilateral transfer (i.e. gifts/donations/grants) besides including balance of trade. Therefore Current A/c includes = Balance of Trade + Balance of Services + Interest Payments + Unilateral Transaction.

Balance of Payments on capital account: Balance of Payments on capital account includes balances of private direct investments, private portfolio investments and government loans to

foreign governments, Trade deficit = 7.9 % of GDP in 2013. Current account deficit = 1.7% foreign Exchange Reserve of India – 304 billion US dollar.

VII. External Debts

External assistance to India has been in two forms - grants and loans. While grants do not involve any repayment obligation, loans carry an obligation to pay interest and repay the principal. About 90 per cent of the external assistance received by India has been in the form of loans. India's external debt was more than Rs. 22.00,000 crore at end March, 2013. Debt = 23% of GDP (March 2013). The World Bank has categorized India as the 3nl most indebted country in 2012 after China & Brazil.

Chapter 7 - Economic Reforms in India

1. *Econmomics Reforms (Liberalization)*

Following was noticed in 1991 which led to reforms:

Low foreign exchange reserves: 3 weeks finance was left out.

Burden of National Debt - (60% of GNP) Gross National Product.

Inflation(12%)

Industrial Sector:

- Industrial licensing was abolished for all projects except for 18 industries
- At present there are only S industries remain under the purview of industrial licensing:

These are:

1. Distillation and brewing of alcoholic drinks.
2. Cigars and Cigarettes of tobacco and manufactured tobacco substitutes.
3. Electronic Aerospace and Defense equipment: all types.
4. Industrial explosives including detonating fuses, safely fuses, gun powder, nitrocellulose and matches.
5. Specified Hazardous chemicals.

- At present, there are only 2 industries which are reserved for the public sector. They are (i) atomic energy, (ii) rail transport.
- Recently (July 2013); the government allowed increase in FDI in defense beyond 26 percent subject to permissions.

MRTP Act: [Monopoly Restrictive Trade Practice Act (1969)] Under the new Industrial Policy of 1991, this requirement of taking permission from CG (Central Government) for purchasing assets was abolished. Thus, there were no restrictions. MRTP Act was replaced by Competition Act in 2002. Under this, Competition Commission of India was established to prevent adverse impact on competition.

Banking Sector Reforms:

CRR (Cash Reserve Ratio - It has been reduced from 1.5% to 4% - July 14) (Now: 22.5.16 -4%)

SLR (Max. 38.5%) (Statutory Liquidity Ratio reduced to 22 % - Sept 14) (Now: 22.5.16-21.25%)

Prime lending rates now entirely within the purview of the banks and not set by the RBI. Bank rate has been reduced to 9% - Sept. 14. (Now: 22.5.16 - 7 %)

Rate of interest oil saving deposits of commercial banks has been raised to 4 per cent.

Recovery of Debt Due Act, 1993 was enacted.
Based II norm were introduced from March 08 to bring financial stability.
Base III norm were introduced in 2013 & are to be implemented from 2019 to strengthen banks capital requirement.

Following are the major measures which have been undertaken to reform the external sector of the country:

***Exchange Rate Stabilization*:** Through Globalization, Devaluation & Liberalization

Encouragement of Foreign Investment: 100 per cent FDI (Foreign Direct Investment) is now allowed in drugs and pharmaceuticals, hotels and tourism, courier services, oil refining, mass rapid transport system, airports, business to business e-commerce, special economic zones industries, electronic mail and voice mail, advertising film sector, tea and certain telecom industries and internet services providers, etc. Apart from this, 100 per cent FDI is now allowed in asset reconstruction companies single brand retail trading and basic and cellular services. But in these, while up to 49 % FDI is allowed through automatic route, FDI above this is allowed through government approval route i.e. after getting permission from Foreign Investment Promotion Board (FIPB).

Similarly, 74 per cent FDI is allowed in private sector banking (up to 49 per cent through automatic route, above that after getting FIPB permission), telecom sector in certain services, service providers like Direct to Home (DTH) in broadcasting sector (increased from 49 per cent) and credit Information companies.

51 per cent FOI is now allowed in multi-brand retail.

49 per cent FDI is allowed in the domestic carriers (by foreign airlines], and power exchanges.

26 per cent FOI is allowed in defense production, insurance, and print media. (This is of course, subject to certain conditions).

20% percent FOB is allowed in public sector banking

FDI is prohibited in:-

i) Activities/sectors not open to private sector investment e.g. Atomic Energy and Railway Transport
ii) Lottery Business
iii) Gambling and Betting
iv) Business of Chit Fund
v) Nidhi Company
vi) Agricultural (excluding Floriculture, Horticulture, Development of seeds, Animal Husbandry, and cultivation of vegetables, mushrooms etc. under controlled conditions) and Plantations activities (other than Tea Plantations)
vii) Real Estate business (except development of townships, construction of residential commercial premises, roads or bridges to the extent notified in Government's notification
viii) Trading in Transferable Development Rights (TORs).
ix) Manufacture of cigars, cheroots, cigarillos and cigarettes, of tobacco or at tobacco substitutes.

Import Licensing: EXIM Policy in 1992. Restrictions on 715 items were removed in year 2001-02 and in 2000-01 restriction on 714 items were removed.

Import Tariff: India has lowered its average tariff rate from 125 per cent in 1990-91 to 10 per cent in 2007-08.

Tax Reforms: In August 1991, the Government of India constituted a Tax Reforms Committee (TRC) to recommend a comprehensive reform of both direct and indirect tax laws.

Extra:

- ✓ IIFT – Indian Institute of foreign Trade
- ✓ IDBI – Industrial Development Bank of India
- ✓ FIPB – Foreign investor Promotion Board
- ✓ TDR – Transferrable Development Right
- ✓ TRC – Tax Reform Committee
- ✓ FRBMA (2003) – Fiscal Responsibility and Budge Management Act
- ✓ CENVAT – Central Value Added Tax
- ✓ GST – Good & Service Tax
- ✓ DFEC – Duty free Export Credit
- ✓ Drawing right – 1969
- ✓ FIEO – Federation of India export organization
- ✓ SEZ – Special Economic Zones
- ✓ FERA - Foreign exchange Regulation Act
- ✓ FEMA - Foreign exchange management Act (FEMA replaced FERA)
- ✓ EPGC - Export Promotion Capital Goods
- ✓ According to the World Bank's Business Report 2014, India ranks 134 out of 189 countries

2. *Liberalization Privatization Disinvestment*

Liberalization refers to relaxation of previous government restrictions.

Privatization: Privatization refers to the transfer of assets or service functions from public to private ownership. Privatization can be achieved in many ways-franchising leasing, contracting and disinvestment.

Disinvestment: Disinvestment means disposal of public sector's unit's equity in the market.

Minority Disinvestment	Majority Disinvestment	Complete Privatization
Govt. retains 51% of the stake. Minority sale could be through auction or an offer for sale.	Here govt. retains a minority stake in the company i.e. it sells off a majority stake.	Here Govt. holds 0%
Eg: Power Grid Corp. of India Ltd., Rural Electrification Corp. Ltd.,	Few examples being Kochi Refinery Limited (KRL) to Bharat Petroleum Corporation (BPCL)	Eg: Centaur Hotel

Progress of Disinvestment: The disinvestment program was started in 1991-92. By the year end 2013-14, the Government could auction off very small portion of its investment in the public sector, raising around- Rs. 1.5 lakh crore in the process. A close examination of the 39 PSUs which had been chosen for disinvestment / privatization during 1991-98 revealed that out of them only 3 PSUs posted losses.

3. *Globalization*

Meaning of Globalization:Globalization means integrating the domestic economy with the world economy.

Effect of Glooalisation on Indian Economy:India's export growth rate of 22 per cent in 2011-12 over and above the 40 per cent growth of 2010-11 is one of the highest in the world. Exports now finance more than 70 per cent of imports of goods and services.

The International Monetary Fund: Organized in 1946 and commenced its operation in March, 1947. The IMF now has a membership of 188(as of July 2012) countries. It is financed by the participating countries.

The World Bank: International Bank for Reconstruction and Development (IBRD) more popularly known as the World Bank was formed in 1945 at Bretton woods conference. The World Bank was floated in order to give loan to members countries, initially for the reconstruction of their (world) war-ravaged economies, and later for the development of the economies of the poorer member countries. The World Bank provides its member countries (188 in numbers) long term investment loan on reasonable terms. Apart from the World Bank itself, it comprise of the International Development Association (IDA), the International finance Corporation (IFC), and the Multi-lateral Investment Guarantee Agency [MIGA (1988)] and the international Centre for settlement of Investment Disputes [ICSID (1966)].

IDA: The International Development Association (IDA) is the part of the World Bank that helps the world's poorest countries. Established in 1960, IDA aims to reduce poverty by providing interest free credits and grants for programs that boost economic growth, reduce inequalities and improve people's living conditions. IDA is also called soft lending arm of the World Bank.

The World Trade Organisation: World Trade Organisation (WTO) came into existence on 1st January, 1995 in Geneva. AT present there are 160 member countries. It aims at making the whole world a big village where there is free flow of goods and services, capital, technology as well as labour and where there are no barriers to trade. General Agreement on Tariff & Trade (GATT) was replaced by WTO in 1995.

Chapter 8 - Money & Banking

Meaning of Money:

Anything which performed the following three functions is known as money

(i) Served as medium of exchange
(ii) Served as a common measure of value and
(iii) Served as a store of values, was termed as money.

It thus includes, not only currencies and demand deposits (Saving Account) of banks, but also includes a host of financial assets such as bonds, government securities, and time deposits with banks (Fixed Deposit) and equity shares which serve as a store of value.

Bills of exchange are sometimes known as Near Money

Money Stock in India

M1 = Currency with the public i.e., coins and currency notes + Demand deposits of the public known as narrow money.

M2 = M1 + Post office saving deposits.

M3 = M1 + Time(fixed) deposits of the pubic with banks called broad money .

M4 = M3 + Total post office deposits. (Excluding National Saying Certificates)

The third RBI working group (1998) redefined its parameters for measuring money supply and introduced new monetary aggregates (NM).

NM1 = Currency + Demand deposits + Other deposits with RBI.

NM2 = NM1 + Time liabilities portion of saving deposits with banks + Certificates of deposits issued by banks + Term deposits maturing within a year excluding FCNR (B)

(Foreign Currency now Reserve Bank Deposits).

NM3 = NM2 + Term deposits with banks with maturity over one year + Call / term borrowings of the banking system.

NM4 has been excluded from the scheme of new monetary aggregates. Three liquidity aggregates are also introduced L_1, L_2, L_3.

Functions of Bank

(a) Receipt of deposits
(b) Lending of money
(c) Agency services (eg: Payment of bill)
(d) General services (locker, issue DD)
(e) ATM (Automatic Teller Machine) / Automated Banking Machine (ABM)
(f) RTGS (Real Time Gross Settlement)
(g) NEFT (National Electronic Fund Transfer)
(h) ECS (Electronic Clearing Service)

Commercial Banking in India: Government announced the nationalisation of 14 major commercial banks with effect from July, 1969. Six more banks were nationalised in 1980. (Two banks were merged in 1993, so at present there are 19 nationalised banks).

Scheduled: Under RBI [Co-op, private (ICICI, HDFC), Public (National Banks, SBI, Union Bank), Foreign (Citi Bank, HSBC Bank)]

Not Scheduled: Not directly Under RBI.

Factors responsible for Nationalization of Commercial Banks

(i) Private ownership of commercial banks and concentration of economic power
(ii) Urban-bias
(iii) Neglect of agricultural sector
(iv) Violation of norms and granted loans to even those industries which figured no where in the priority list.
(v) Neglect of priority sectors.

Progress of Commercial Banks after Nationalisation:

(i) Expansion of branches: Increased to 1,11,723. As a result, the population per bank office has reduced to around 12,000 in 2013.
(ii) Branch opening in rural and unbanked areas: Percentage of rural branches bank improved to about 38 per cent in June, 2013.
(iii) Deposit mobilisation: Increased to around ` 60,00,000 crore in 2012. Considering state-wise deposit mobilisation, we find Maharashtra leads all other states and accounts for 22 per cent of the aggregate deposits received by the banks.
(iv) Bank lending: It has gone up to about Rs. 60,00,000 crore in April, 2014. Banks have taken special care of the priority sectors in their lending operations.
(v) Promotion of new entrepreneurship
(vi) Due to stringent credit norms the gross NPAs (Non-Performing Assets) have fallen. As a percentage of gross advances, they have fallen from 10.5 percent in 2001-02 to 3.6 per cent in 2012-13.

***Reserve Bank of India (RBI)*:**

***Meaning and Function of a Central Bank*:** A Central Bank is one which constitutes the apex of the monetary and banking structure of a country

Functions of Reserve Bank of India:

(i) **Issue of currency:** Other than one rupee coins and notes and subsidiary coins, the magnitude of which is relatively small.
(ii) Banker to the government

(iii) Banker's Bank
(iv) Custodian of foreign Exchange Reserves
(v) Controller of Credit
(vi) Promotional Functions
(vii) Collection and publication of Data

Indian Monetary Policy

Monetary Policy is usually defined as the Central Bank's policy pertaining to the control of the availability, cost and use of money and credit with the help of monetary measures in order to achieve specific goals.

I. Quantitative or General Measures:

(a) **Bank Rate Policy:** Bank Rate is the rate at which central bank rediscounts the approved bills held by a commercial bank for long term.
(BR increase - Supply of Money Decrease - Inflation decrease & Vise Versa)

(b) **Open market operations:** Open market operations imply deliberate direct sales and purchases of securities in the market by the Central Bank on its own. (Market Security sell - Money supply in market decrease - inflation decrease & Vise Versa)

(c) **Variable reserve requirements:** (i) Cash Reserve Ratio (CRR) (ii) Statutory Liquidity Ratio (SLR). Cash reserve ratio refers to that portion of total deposits which a commercial bank has to keep with the Central Bank in the form of cash reserves. Statutory liquidity, ratio refers to that portion of total deposits which a commercial bank has to keep with itself in the form of liquid assets viz - cash, gold or approved government securities. By changing these ratios, the Central Bank controls credit in the economy.
(CRR / SLR increase - Supply of Money Decrease -Inflation decrease & Vise Versa)

(d) **Repo Rate and Reverse Repo Rate:** Repo Rate is the rate at which our banks borrow rupees from RBI. Repo Rate is 8 per cent - September 2014. (Now: 22.5.16 - 6.5%)
Reverse Repo Rate is the rate at which Reserve Bank of India (RBI) borrows money from banks. Reverse Repo Rate is 7 per cent - September 2014. (Now: 22.5.16 – 6%)
(Repo Rate increases - supply decreases - inflation decreases & vise versa)
(Reverse Repo Rate increases - supply decreases - inflation decreases & vise versa)

II. Qualitative or Selective Measures:

(a) Securing loan regulation by fixation of margin requirements (Value of security – Value of Loan).
(b) **Consumer credit regulation:** Number of Installments & Down Payment.
(c) Issue of directives to CB (Commercial Bank).
(d) **Rationing of credit:** Regulating the purpose for which credit is granted or allocated by commercial banks.
(e) **Moral suasion:** Moral suasion implies persuasion and request made by the Central Bank to the commercial banks to co-operate with the general monetary policy.
(f) **Direct Action:** The Central Bank may take direct action against the erring Commercial banks.

Extra's

- ✓ RBI was nationalized in 1949.
- ✓ land development Bank provides loans for a period of 15-20 years.
- ✓ Minimum Reserve System method of note issue is prevailing in India.
- ✓ Banking ombudsman means a person who redresses customer's grievances.
- ✓ RBI Act was made in 1934.
- ✓ 1975 (Regional Rural Banks 196).
- ✓ 1982 National Bank for Agriculture and Rural Development Bank (NABARD) was established.

- ✓ At present (in Sep. 2014), Bank rate is 9%, CRR is 4% and SLR is 22% for entire demand and time liabilities.