CHAPTER-1

DEFINITIONS OF ECONOMICS

TOPIC-1
Definition of Economics : Wealth and Welfare Oriented Definition

Revision Notes

- **Definitions of Economics :** Economics is a social science that studies human wants in relation to the scarce resources having alternate uses and their rational management in such a manner that the economic welfare is maximized. It is concerned with the production, distribution, and consumption of goods and services to maximize economic welfare.
- **Wealth definition of Economics:** Wealth definition given by Adam Smith,"Economics is an enquiry into the factors that determine the wealth of a country and its growth". In the ordinary language, wealth means money. But in economics, the term 'wealth' refers to those goods which satisfy human wants.
- **Important Features :** Adam Smith was of the view that economics is concerned with the problems arising from wealth- getting and wealth-using activities of people. He was interested mainly in studying the ways by which the wealth of all nations could be increased.
- **Criticisms**
  - It has ignored the higher values of life.
  - Narrow concept of wealth
  - Reduced man to secondary place
  - It ignores the problem of scarcity.
- **Welfare Oriented Definition :**
  Welfare definition given by Alfred Marshall, "Political Economy or Economics is a study of man in the ordinary business of life. It enquires how he gets his income and how he uses it." It examines that part of individual and social action which is most closely connected with the attainment and use of material requisites of well being. Thus, it is, on the one side, a study of wealth and, on the other and more important side, a part of the study of the man."
- **Important features :**
  - Study of mankind
  - Study of ordinary business of life
  - Study of material welfare
  - Emphasis on requisites of well-being
  - Exclusion of non-economic activities
- **Criticisms**
  - Economics as a social science only
  - Impractical classification of activities
  - Materialistic aspect
  - Restricted scope of economics
  - Vague concept of material welfare

TOPIC-2
Scarcity and Growth Oriented Definition

Revision Notes

- Scarcity definition given by Lionel Robbins. According to Robbin's :
  "Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses."

- **Main features of the definition :**
  - Unlimited wants
  - Scarce means
  - Alternative use of means
  - Economics as a Science
- **Criticisms of the definition :**
  - Regards economics as positive science only.
  - It restricts economics to the theory of product and factor pricing only.
  - Static definition of economics.
  - Economic problems may not always arise from scarcity.
- Growth oriented definition given by Samuelson :

  "Economics is the study of how men and society choose with or without the use of money, to employ the scarce productive resources which have alternative uses, to produce various commodities over time and distribute them for consumption now and in future among various people and groups of society. It analyses the costs and benefits of improving pattern of resource allocation."
- **Main Features**
  - Emphasis on economic problems
  - Long-term perspective
  - Dynamic approach
  - Universal nature of economic problem
  - Comprehensive definition and broader perspective

CHAPTER-2

MICRO AND MACRO ECONOMICS

TOPIC-1
Microeconomics and Macroeconomics

Revision Notes

- **Microeconomics :** It is the study of economic behaviour of individual economic units and individual economic variables. For example : theory of price, theory of consumer behaviour, etc.
- **Macroeconomics :** It deals with the functioning of the economy as a whole. For example : Aggregate demand and Aggregate supply, National Income.

TOPIC-2
Basic Concepts of Economics

Revision Notes

- **Utility:** Want satisfying power of a commodity.
- **Features:** Utility is:
  - **(i)** subjective
  - **(ii)** not measurable
  - **(iii)** relative concept
  - **(iv)** different from usefulness
  - **(v)** has no moral connotations
  - **(vi)** utility is abstract
- **Types of Utility:**
  - **(i) Total Utility:** Entire amount of satisfaction obtained from consuming a given quantity of a commodity.
  - **(ii) Marginal Utility:** Additional utility arising from the consumption of one more unit of a commodity.
  - **(iii) Diminishing Marginal Utility:** The utility gained from each successive units of a Commodity.
- **Human wants:** An effective desire for a particular things, which can be satisfied by making an effort to acquire it.
- **Price:** Price of a commodity is the amount of money that has to be given to get the commodity. Prices are determined by the forces of demand and supply.
- **General price level:** Average level of prices of all goods and services produced in the economy.
- **Value:** Valuation placed by a household on the consumption of a commodity.
- **Wealth:** Stock of goods which are a source of income.
- **Welfare:** A sense of satisfaction, happiness and well-being among the people.
- **Market:** A system in which the buyers and sellers of a commodity interact and communicate with each other and strike a deal about the price and quantity.
- **Investment:** Act of using productive resources for the production of investment goods.
- **Income:** Flow of money over time.
- **Consumption:** Act of using goods and services to satisfy human wants.
- **Saving:** That part of income which is not spent on consumption.
- **Business cycle:** The recurrent fluctuations in the aggregate economic activity.
- **Aggregate demand:** The total amount of goods demanded in the economy.
- **Aggregate supply:** Total amount of output which all the firms or producers are willing to produce.

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CHAPTER-3

BASIC ECONOMIC PROBLEMS AND TYPES OF ECONOMIES

TOPIC-1
Central Economic Problems

Revision Notes

- **Meaning:** Economic Problem is the problem regarding allocation of limited resources for the production of alternative goods and services.
- **Law of scarcity:** Law of scarcity states that goods are scarce because there are not enough resources to produce all the goods that people want to consume.
- **Economic problems arise due to:**
  (i) Unlimited wants
  (ii) Limited resources
  (iii) Resources have alternative uses
- **Basic or Central Problems of an Economy**
  (i) What to produce: Problem of what commodities shall be produced and in what quantity. It is the problem of resource allocation.
  (ii) How to produce: Problem of which techniques to be used, *i.e.*, capital intensive or labour intensive in the production. It is the problem of techniques of production.
  (iii) For whom to produce: Problem of distribution of income among various resource owners who contribute in the production of goods and services.

Know the Terms

- **Labour intensive techniques:** It is that technique by which more of labour and less of capital is required for the process of production.
- **Capital intensive techniques:** Capital intensive technique refers to that technique in which larger amount of capital is comparatively used.
- **Non-human resources:** Non-human resources are tangible things or objects that exist externally of people. They can be seen, experienced and used by people.

TOPIC-2
Production Possibility Curve

Revision Notes

- **Production Possibility Curve:** PPC is the curve which shows various combinations of two goods that can be produced with the given amount of resources, assuming that the technology is given and the resources are fully and efficiently employed.
- Assumptions
  (i) The amount of productive resources are fixed.

(ii) No change in technology.
(iii) All the resources are fully and efficiently employed.
(iv) Resources are not equally efficient in production of all the commodities.

- **Characteristics of PPC:**
  (i) It slopes downwards to right.
  (ii) It is concave from the origin.
- **Central Problems on a PPC:**
  (i) The problem of scarcity is shown by the points lying outside PPC.
  (ii) The problem of choice is shown by the need for choosing from different points on PPC.
  (iii) The problem of what to produce is shown by a particular point on a given PPC.
  (iv) Problem of full and efficient utilisation of resources is shown by indicating whether the production is on the boundary of a PPC.
  (v) Problem of economic growth is shown by the shift of PPC to the right.

TOPIC-3
Types of Economies

Revision Notes

- **Developed Economy:** Developed economy is characterised by high real per capita income, high standard of living, low incidence of poverty, high share of industrial and service sector in national product, low growth rate of population, advanced technology and predominance of export of industrial goods.
- **Developing Economy:** Developing economy is characterised by low per capita income, widespread poverty, low standard of living and predominance of agriculture as a source of employment, high growth rate of population, large unemployment, low rate of capital formation, inadequate infrastructure and use of traditional and inefficient technique.
- **Capitalism:** Productive resources are owned by private individuals to earn profit and in which State intervention is minimum.
- **Features of Capitalism:** Private property; right of inheritance; freedom of enterprise and occupation; price mechanism; consumer sovereignty; competition; profit motive; self interest; minimum govt. interference.
- **Merits of Capitalism :** Spirit of enterprise; incentive for technological development; efficient use of resources; incentive for capital formation; new consumer goods; flexibility and adaptability; automatic working; economic freedom; higher production and standard of living; expansion of international trade.
- **Demerits of Capitalism:** Inequalities of income and wealth; class struggle; economic instability; misallocation of resources; emergence of monopoly power; negligence of social welfare; domination of economic values.
- **Socialism:** Means of production are owned and operated by public authority for the benefit of entire community to maximize social welfare.
- **Features of Socialism:** Social ownership of means of production; economic planning; social welfare motive; economic equality; classless society; elimination of competition.
- Merits of Socialism: Better allocation of resources; fuller utilisation of resources; economic stability; equal distribution of income; elimination of class struggle; provide social security; rapid economic growth; production of more useful goods.
- **Demerits of Socialism:** Difficulty in rational allocation of resources; loss of efficiency; loss of incentive; loss of consumer sovereignty; loss of individual freedom; concentration of political and economic power; loopholes in the planning process.
- **Mixed Economy:** Combines the elements of both capitalism and socialism. India is a mixed economy.
- **Features of Mixed Economy:** Coexistence of public and private sector; coexistence of capitalist and socialistic features; economic planning; regulated private sector; promotion of social welfare; price mechanism; profit motive; preservation of freedom.
- **Merits of Mixed Economy:** Proper allocation of resources; economic stability; advantages of market system; rapid economic development; check over concentration of economic power; economic and political freedom.
- **Demerits of Mixed Economy:** Conflict between public and private sector; short lived nature; inefficient operation; poor performance of public sector; excessive regulations.
- **A Simple Economy** in which each individual specialises in production of one commodity.
- **Complex Economy** high degree of specialisation, complex division of labour and mutual dependence.
- **Closed economy** which doesn't have any economic transaction with other countries of the world.
- **Open economy** which has economic transaction with other countries of the world.

Know the Terms

- **Public Distribution System:** The Public Distribution System (PDS) evolved as a system of management of scarcity through distribution of food grains at affordable prices.
- **Red Tapism:** Red Tape is an idiom that refers to a bureaucracy that prescribes or confirms to formal rules or standard that are allegedly excessive, rigid or redundant, or that obstructs or prevents actions or decision red take is an idiom that refers to a bureaucray that prescribe or conforms to formal rule or standard that is allegedly exeresis, rigid, or redundant or that obstruct or prevents action or decision - making.

TOPIC-4
Solutions to the Basic Economic Problems in Different Economies

Revision Notes

- **Solution of economic problems in capitalist economy:** through price mechanism.
- **Price Mechanism:** Price mechanism is the mechanism in which prices play a key role in directing the activities of producers, consumers and resource owners.
- **Functions of Price Mechanism**
  - Determines the level of economic activities
  - Coordination of economic decisions
  - Guiding force to consumer
  - Determination of factor income
  - Guide to producers
- **Limitations of Price Mechanism**
  - Decline of competition
  - Consumer's sovereignty, a myth
  - Social welfare may not be maximised
  - Economic inequalities
  - Economic instability
  - Neglect of low profit areas
- **Solution of economic problems in a socialist economy:** through central planning authority.
- **Solution of economic problems in a mixed Economy:** both by price mechanism and economic planning.

CHAPTER-4
PLANNING AND ECONOMIC DEVELOPMENT IN INDIA

TOPIC-1
Parameter of Development: Human Development Index

Revision Notes

- **Economic Growth** is defined as the process whereby the real per capita income of a country increases over a long period of time.

- **Economic Development** is a comprehensive concept including increasing real per capita income of a country over a long period of time along with reduction in poverty, inequality and unemployment.
- **Human Development Index (HDI):** Process of widening people's choices as well as raising the level of well-being achieved. It has three dimensions– Life expectancy at birth, Educational attainment and decent standard of living as measured by GDP per capita adjusted for PPP US $.

TOPIC-2
Planning and Economic Development in India

Revision Notes

- **Economic Planning:** Economic planning refers to consciously directed efforts of the planning authorities to use the productive resources of the economy to achieve certain objectives within a specified period of time.
- Planning process in India started in 1951 with the starting of the first Five-Year Plan.
- **Macro objectives of Economic Planning in India :**
  (i) Economic growth
  (ii) Reducing unemployment
  (iii) Reduction in inequality of income
  (iv) Removal of poverty
  (v) Establishment of socialist society
  (vi) Modernisation of the economy
  (vii) Self-reliance
- **Achievements of Planning in India :**
  (i) Increase in income
  (ii) Change in composition of income
  (iii) Growth in agriculture and industrial sector
  (iv) Change in industrial scenario
  (v) Increase in savings and investments
  (vi) Large expansion of infrastructure
  (vii) Development in science and technology
  (viii) Change in agriculture sector
  (ix) Substantial progress in education and health facilities
- **Failures of Planning in India :**
  (i) Inadequate growth rates
  (ii) Failure to eradicate poverty
  (iii) Failure to remove unemployment
  (iv) Large inequalities
  (v) Inefficient use of resources
  (vi) Slow growth of infrastructure
  (vii) Inflationary pressure
  (viii) High magnitude of deficit financing
- **Factors inhibiting successful implementation of the plans :** realistic plans; overambitious plans; faulty implementation; lack of coordination; inadequate infrastructure; bureaucratic approach; financial constraints; natural constraints; rapid population growth.

Know the Terms

- **Consumer Goods:** Goods purchased for satisfaction of wants are consumer goods.
- **Intermediate Goods:** Those goods and services which are purchased as raw material for further production or for resale in the same year.

- **Capital Goods:** All goods which are used in the production of other goods either as fixed assets or as inventory/ stock are called Capital Goods.
- **Deficit Financing:** A practice in which a government spends more money than it receives as revenue, the difference being made up by borrowing or minting new funds.

CHAPTER-5

STRUCTURAL CHANGES IN THE INDIAN ECONOMY

TOPIC-1
Liberalisation

Revision Notes

- **Need for Economic reform :**
  - **Weakness of the pre-1991 policies**
  - **Major foreign exchange crisis**
  - **Conditionalities imposed by IMF and World Bank**
  - **Fall of USSR**
- **Liberalisation:** Policy of deregulation of different segments of the economy.
- **Features of Liberalisation Policy**
  - (i) Delicensing
  - (ii) Controlling monopolies
  - (iii) Liberalisation of industrial location
  - (iv) Removal of restriction on mergers
  - (v) Liberalisation of capital market
  - (vi) Foreign exchange market reforms
  - (vii) Development of infrastructure
- **Significance of Liberalisation Policy**
  - (i) Abolition of inspector raj
  - (ii) Decrease in role of public sector
  - (iii) Freedom to entrepreneurs
  - (iv) Spirit of competition in the economy
  - (v) Greater autonomy of private investment
- **EBOP:** The balance of payments (BOP) is a statement of all transactions between a country/region and other countries/regions in the world during a specified time period (such as a quarter or a year).
- **FDI:** Foreign Direct Investment (FDI) refers to an investment made by an entity located in another country/region in the form of a controlling stake in a company in a country/region.
- **WTO:** The World Trade Organization (WTO) is an intergovernmental organization that is concerned with the regulation of international trade between nations.

TOPIC-2
Privatisation

Revision Notes

- **Privatisation:** Privatisation basically implies the process which leads to transfer of ownership of public sector enterprises from the government to the private sector.

- **Features of privatisation policy :**
  - **Policy of deresevation (reducing the number of industries reserved for the public sector)**
  - **Policy towards sick public sector enterprises (revival of sick public sector enterprises)**
  - **Policy for navratnas and miniratnas (providing them managerial and financial autonomy)**
  - **Memorandum of Understanding (to grant autonomy to PSUs and increasing the quality of accountability)**
  - **Voluntary retirement scheme (for the employees of PSUs)**
  - **Disinvestment policy (selling of equities of PSUs to private sector financial institutions, investors and public at large)**
- **Rationale of Privatisation :** Improvement in managerial efficiency; creation of competitive environment; profit oriented decisions; greater flexibility in decision making; less burden on Public exchequer; greater investment and employment opportunities; revival of sick units; increase in accountability; increase in financial discipline.
- **Arguments against Privatisation :** Neglects social welfare; possibility of unemployment; growth of private monopoly; possibility of increased corruption; lopsided industrial development.

Know the Terms

- **MoU:** A memorandum of understanding is a type of agreement between two or more parties. It expresses a convergence of will between the parties, indicating an intended common line of action.
- **GDRs:** Global Depository Receipts is the generic name for depository receipts, in which certificates issued by depository banks to purchase shares of foreign companies create securities on local exchanges backed by these shares.
- **Monopoly:** Monopoly is such a market situation in which there is a single seller having complete control over the supply of the commodity.

TOPIC-3
Globalisation and Changes in the Indian Economy after 1991

Revision Notes

- **Globalisation :** Policy of integration of economy with other economies of the world.
- **Features of Globalisation :**
  - (i) Exchange rate reforms
  - (ii) Inflow of Foreign Direct Investment
  - (iii) Free flow of foreign technology
  - (iv) Opening up to foreign investment
- **Effects of Globalisation on Indian Industries:**
  - (i) Entry of Multinational corporations
  - (ii) Development of IT and BPO sector
  - (iii) Availability of advanced technology
  - (iv) Skilled manpower
  - (v) Setting up of SEZs
  - (vi) Indian Corporate Sector emerging as a global player
  - (vii) Increased competition
  - (viii) Loss of jobs
  - (ix) Takeovers and speculative investment by foreign investors
- **Changes in the Indian Economy since 1991 :**
  - (i) Acceleration of economic growth
  - (ii) Higher industrial growth rate
  - (iii) Changes in composition of national income
  - (iv) Increase in the rate of savings and investments

(v) Increase in foreign trade
(vi) Higher foreign exchange reserves
(vii) Increase in Foreign Direct Investment
(viii) Increase in foreign investment by Indian companies
(ix) Decreased role of public sector

Know the Terms

- **Gross Capital Formation:** Gross capital formation (GCF) refers to the aggregate of gross additions to fixed assets (i.e., fixed capital formation), increase in stocks of inventories, hereinafter referred to as change in stocks during a period of account and net acquisition of valuables.
- **Export:** Export refers to a product or service produced in one country but sold to a buyer abroad.
- **Import:** An import is a good or service bought in one country that was produced in another.
- **Demonetisation:** It is the process of stripping a currency unit from its status as legal tender in the country.

CHAPTER-6

CURRENT

CHALLENGES FACING INDIAN ECONOMY

TOPIC-1
Poverty

Revision Notes

- **Poverty:** Lack of basic necessities of material well-being. There are two types of poverty :
  - Absolute poverty : **It refers to the total number of people living below poverty line. It is defined in terms of minimum consumption expenditure.**
  - Relative poverty : **It refers to a situation of falling behind most other members of the community. It is related to distribution of income or distribution of consumption expenditure in society.**
- **Poverty line:** It is a cut-off point on the line of distribution, which usually divides the population of the country as poor and non-poor. It is determined on the basis of monthly per capita expenditure.
- **Magnitude of poverty in India** : Planning Commission estimates (1973-74 to 2011-12) decrease in poverty from 56% to 26% in rural areas, 49%to 14%in urban areas from 55%to 22% from all India.
- **Causes of poverty** : Rapid population growth of poor; low growth rate; unemployment; growth strategy; inequalities in income; little trickle down effect of economic development; low education; inadequate anti-poverty measure; socio-cultural factors and political factors.
- **Government's policy for Poverty Eradication :**
  (i) Agricultural development
  (ii) Development of small scale and cottage industries
  (iii) Population control
  (iv) Land reforms
  (v) Public distribution system
  (vi) Poverty Alleviation Programmes :
    (a) Swarna Jayanti Gram Swarozgar Yojana
    (b) Pradhan Mantri Gramodaya Yojana
    (c) Sampoorna Gramin Rozgar Yojana

(d) National Food for Work Programme
   (e) Krishi Shramik Samajik Suraksha Yojana
   (f) Mahatma Gandhi National Rural Employment Guarantee Act, 2005
   (g) Prime Minister's Rozgar Yojana
   (h) Swarna Jayanti Shahari Rozgar Yojana

(viii) Other General Programmes for helping Poor :
   (a) National Social Assistance Programme
   (b) Pradhan Mantri Awaas Yojana
   (c) Shiksha Sahayog Yojana

(ix) Welfare Schemes :
   (a) Pradhan Mantri Suraksha Bima Yojana
   (b) Pradhan Mantri Atal Pension Yojna
   (c) Pradhan Mantri Kaushal Vikas Yojana

➢ **Efficacy of PAPs :**
- Achievements :
   (a) Decrease in poverty
   (b) Increase in income level
   (c) Higher wages
   (d) Improvement in nutritional levels
- Shortcomings :
   (a) Unsatisfactory administration and implementation
   (b) Poor performance of supporting institutions
   (c) Leakages
   (d) Neglect of remote areas
   (e) Defective strategy
   (f) Lack of proper coordination
   (g) Lack of people's participation
   (h) Not linked with the overall strategy of development

Know the Terms

- **Chronic Poor:** Those who are always poor but sometimes have a little more money are grouped together as chronic poor.
- **Churning Poor:** Those who regularly move in and out of poverty line are grouped together as churning poor.
- **Transient Poor:** Those who are rich most of the time but may sometimes have a patch of bad luck are grouped together as transient poor.
- **Poverty line:** A cut-off point on the income distribution which divides the population as poor and non-poor. People below poverty line are poor and above that line are average or rich.
- **Trickle down effect:** The transfer of income from assets owing person to non-assets owing person is called trickle down effect.

TOPIC-2
Rural Development

Revision Notes

➢ **Indian Agricultural Policy and Rural Development:** Technological measures, infrastructural facilities, land reforms, minimum support and procurement price, input subsidies, Food security system, Rural employment programmes, Program of people's participation

➢ **Sources of Rural Credit :** There are two main sources:

(i) Non-institutional sources : These are the traditional and main source of agriculture credit in India before 1951. It consists of a) moneylenders; b) friends and relatives; c) traders and commission agents; d) rich landlords.

Merits : a) Loans for all purposes; b) easily accessible; c) simple and flexible method; d) loans without land security.

Demerits : a) Exorbitant interest; b) malpractices of moneylenders; c) forced sale.

(ii) Institutional sources: It is the main source of agricultural finance meeting 60% of the requirements. It consists of :

- **(a) Co-operative credit :** Provides short period and medium period credit through Primary Agricultural Credit Societies and long-term credit through Land Development Banks.
- **(b) Commercial bank credit :** These banks provide rural credit directly to the farmers for short and medium term and indirectly by providing loans to Primary Credit Societies. The share of these banks in the Institutional Agricultural Credit was 75% in 2016-17.
- **(c) Regional Rural Banks :** Known as small man's bank they provide loans to the weaker sections of the rural areas at lower cost. The share of these banks in institutional rural credit was about 12% in 2016-17.
- **(d)** The Government
- **(e)** National Bank for Agricultural and Rural Development
- **(f)** Self-help groups

Merits of Institutional Credit: Not exploitative in nature; low interest rates; credit for different durations; integrated with other agricultural operations like marketing and inputs.

- **Agricultural Diversification :** Means decrease in the share of crop sector and increase in the share of livestock farming.
- **Characteristics of Agricultural Diversification in India:** Diversification a) of cropping pattern; b) towards horticulture sector; c) towards animal husbandry and fisheries.
- **Organic Farming :** Organic farming is the form of agriculture that relies on techniques such as crop rotation, green manures, compost and biological pest control rather than chemical or manufactured fertilizer and pesticides.
- **Benefits of Organic Farming :** Environment protection; healthy food; improvement in soil quality; sustainable agriculture; more employment opportunities; inexpensive inputs.
- **Agricultural marketing :** Marketing of agricultural produce; involving collection; storage transportation to market place; grading and standardization and selling the produce.
- **Govt. measures to improve Agricultural marketing System :** Establishment of regulated markets; storage and warehousing facilities; uniform standard weights; grading and standardization; National Agriculture market; state trading in food grains.

Know the Terms

- **Gross Value Added:** Gross Value Added is the measure of the value of goods and services produced in an area, industry or sector of an economy.
- **National Income:** National income is the total value a country's final output of all new goods and services produced in one year.
- **Marginal Farmer:** Marginal Farmer' means a farmer cultivating (as owner or tenant or share cropper) agricultural land up to 1 hectare (2.5 acres).

TOPIC-3
Human Capital Formation

Revision Notes

- **Human Capital Formation:** Human Capital Formation refers to the process of improvement in the knowledge, skills, ability and physical capacity of the people.
- **Importance of HCF:**
  (i) Helps in absorbing new techniques.
  (ii) Increases labour efficiency
  (iii) Higher productivity and production capacity
  (iv) Improves quality of life
  (v) Instrument for economic change

- **Education profile in India**
  - Literacy rate was 18% in 1951 increased to 74% in 2014.
  - No. of primary and upper schools were 2.23 lakh increased to 12.85 lakh in 2017-18.
  - Gross enrolment ratio at elementary education level increased from 32.1% in 1951 to 93% in 2017-18.
  - No. of secondary and senior secondary schools has increased from 7,400 in 1951 to 2.73 lakh in 2017-18.
  - No. of colleges increased from 695 in 1951 to 39,931 in 2018-19.
  - No. of universities has increased from 27 in 1951 to 993 in 2018-19.
- **Shortcomings**
  (i) Inadequate educational facilities
  (ii) Unequal accessibility
  (iii) Irrelevant and poor in quality
  (iv) Imbalances
  (v) Insufficient resources for education sector
  (vi) Low budgetary expenditure on education (3-4% of GDP)
- **Health Profile**
  - In 1951 no. of medical colleges were 529 increased to 529 in 2019.
  - In 1951 no. of hospitals were 2,700 increased to 37,725 increased to 23,580 in 2018.
  - In 1951 no. of doctors were 61,800 increased to 12.92 lakhs in 2016.
  - Life expectancy has increased from 32 years to 69 years in 2017.
  - Death rate has gone down from 27.4 per thousand in 1951 to 7.2 per thousand in 2018.
  - Government spends only about 1.4% of GDP on health in India.

Know the Terms

- **GDP:** Gross domestic product (GDP) is a standard measure of the added value a country creates through the production of goods and services in a certain period of time.
- **Per Capita Income:** Per capita income is a measure of the amount of money earned per person in a nation or geographic region.
- **Primary Completion Rate:** Primary completion rate is the percentage of students completing the last year of primary school.

TOPIC-4
Unemployment

Revision Notes

- **Unemployment:** It is a situation when there are some able-bodied persons who are willing to work at the prevailing wage rate, but are not able to find work which may yield them some regular income.
- **Types of unemployment:**
  Cyclical and frictional unemployment are the main forms of unemployment in advanced countries. Structural unemployment, disguised unemployment, underemployment and seasonal unemployment are main types of unemployment facing the Indian economy.
- **Causes of unemployment:**
  (i) Low rate of economic growth
  (ii) Low growth of agriculture
  (iii) Low rate of capital formation
  (iv) Rapid population growth
  (v) Use of capital intensive technique
  (vi) Weak manpower planning

(vii) Poor education system
(viii) Inadequate employment planning
(ix) Migration from rural area
(x) Decline of small industries

➢ **Measures to remove unemployment:**

Long run measures :

(i) High rate of economic growth
(ii) Development of agriculture sector
(iii) Rural industrialization
(iv) Development of SSI
(v) Creation of self employment opportunities
(vi) Manpower planning
(vii) Educational reforms
(viii) Emphasis on skill formation
(ix) Controlling population growth

Special Employment Generation Programs

- Jawahar Gram Samruddhi Yojna
- Employment Assurance Scheme
- Sampoorna Gramin Rozgar Yojana
- SJSRY, SGSY, PMRY, MGNREGA, Skill India Programme, PMKVY

Know the Terms

- **Manpower Planning:** Manpower planning (also called human resource planning) includes putting the right number of people, the right people in the right place, at the right time, and doing the right things that suit them to achieve organizational goals.
- **Educated Unemployment:** Educated unemployment refers to a person who is educated and cannot find a suitable and effective job for himself.
- **Urban Unemployment:** Urban unemployment refers to the unemployment that exists in urban areas. This is mainly a phenomenon in industry and service industries.

CHAPTER-7

SUSTAINABLE DEVELOPMENT

Revision Notes

➢ **Sustainable Development :** Development that meet the needs of the present generation without compromising on the ability of the future generations to meet their own needs.

➢ **Need for sustainable development:**

- Natural resources and environment as common heritage
- Indiscriminate use of natural resources
- Use of natural resources as costs of development
- Quality of life depends on quality of environment

➢ **Strategies for sustainable development :** Replenishment of resources, rational and equitable use of resources across generations, environment protection, conservation of biological diversity, organic farming, use of input efficient technologies, use of environment friendly sources of energy, increasing public awareness.

➢ **Effect of Economic Development on Resources and Environment:**

(i) Depletion of natural resources
(ii) Water pollution

(iii) Air pollution
(iv) Solid and hazardous wastes
(v) Soil erosion
(vi) Global warming
(vii) Loss of biodiversity
(viii) Deforestation

- **Global Warming:** A gradual increase in the overall temperature of the earth's atmosphere.
- **Effects of Global Warming:**
  (i) Global temperature increase,
  (ii) Rise in sea level,
  (iii) Effects on human health,
  (iv) Negative effects on agriculture.

Know the Terms

- **Economic Welfare:** Economic welfare is the level of prosperity and living standards of an individual or a group of people.
- **Unplanned Urbanisation:** Unplanned urbanization is the growth of urban centres without a blueprint.
- **HYV Seeds:** HYV seeds means high yielding varieties of seeds. HYV seeds produce much greater amounts of grain on a single plant.
- **Soil Salination:** Soil salinization refers to the accumulation of free salt, the extent of which can lead to the degradation of soil and vegetation.
- **Soil Erosion:** Soil erosion is the displacement of the upper layer of soil; it is a form of soil degradation.

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CHAPTER-8

INTRODUCTION TO STATISTICS

Revision Notes

- **Statistics :** It is the science of numbers that finds various inferences from these aggregate numbers by using various statistical tools. In other words, statistics refers to quantitative data which are collected systematically.
- **Scope of Statistics :**
  (i) To simplify complex facts
  (ii) To compare the facts
  (iii) To test a hypothesis
  (iv) Forecasting
- **Limitations of statistics :**
  (i) Only quantitative study of data is possible in statistics
  (ii) Results are based on estimation
  (iii) Statistical results can be understood only by experts
  (iv) Statistical results may be non-uniform

Know the Terms

- **Public Expenditure:** Public expenditure is the expenditure that a country's government wants to meet collective needs, such as pensions, reserves (such as education, healthcare, and housing), security, infrastructure, etc.
- **Hypothesis:** A hypothesis is a hypothesis, a concept put forward for the purpose of argumentation so that it can be tested to see if it holds.

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CHAPTER-9

MEASURES OF CENTRAL TENDENCY

TOPIC-1
Arithmetic Mean

Revision Notes

- **Average:** A single value *i.e.* representative of all the items in a series.
- **Central Tendency :** An average is called a measure of central tendency as the individual values of variable cluster around it. It has three tools– **(i)** Arithmetic mean **(ii)** Median **(iii)** Mode
- **Arithmetic Mean:** It is the number obtained by dividing the total values of different items by their number.
- **Weighted Arithmetic Mean:** It refers to the average when different items of a series are given different weights according to their relative importance.
- **Arithmetic Mean, Properties and Weighted Mean:**

Type of Series	Direct Method	Short-cut Method	Step Deviation Method
1. Individual Observations **(ungroup data)**	$\bar{X} = \frac{\Sigma X}{N}$	$\bar{X} = A + \frac{\Sigma d}{N}$	$\bar{X} = A + \frac{\Sigma d'}{N} \times C$
2. Discrete Series **(Grouped data)**	$\bar{X} = \frac{\Sigma fX}{N}$	$\bar{X} = A + \frac{\Sigma fd}{N}$	$\bar{X} = A + \frac{\Sigma fd'}{N} \times C$
3. Continuous Series **(Grouped data)**	$\bar{X} = \frac{\Sigma fm}{N}$	$\bar{X} = A + \frac{\Sigma fd}{N}$	$\bar{X} = A + \frac{\Sigma fd'}{N} \times C$

Mathematical Properties of Arithmetic Mean

Here, $X - \bar{X} = x$

Mathematically:

(1) $\Sigma(X - \bar{X}) = 0$

$\therefore \Sigma x = 0$

$\Sigma f(X - \bar{X}) = 0$

$\therefore \Sigma fx = 0$

Properties of Arithmetic Mean

(3) $\Sigma(X - \bar{X})^2$ is the least, Σx^2 is minimum

Weighted Mean $\bar{X}w = \frac{\Sigma WX}{\Sigma W}$

(2) $\bar{X}_{1,2} = \frac{N_1\bar{X}_1 + N_2\bar{X}_2}{N_1 + N_2}$

Similarly

$\bar{X}_{1,2,3} = \frac{N_1\bar{X}_1 + N_2\bar{X}_2 + N_3\bar{X}_3}{N_1 + N_2 + N_3}$

(4) $N\bar{X} = \Sigma X$

- **Merits of Mean :** Certainly of value of mean, based on all observations, simplest of all averages, capable of further algebraic treatment, least affected by changes in the sample, can be used as a basis of comparison.
- **Demerits of Mean:** Affected by extreme values, problem in case of incomplete data, mean value may not figure in the series, misleading conclusions.

Know the Terms

- **Geometric Mean:** The geometric mean is a mean or average, which indicates the central tendency or typical value of a set of numbers by using the product of their values.
- **Harmonic Mean:** Harmonic mean is a type of average that is calculated by dividing the number of values in a data series by the sum of the reciprocals of each value in the data series.
- **Quartile:** A quartile is a type of quantile which divides the number of data points into four more or less equal parts, or quarters.

TOPIC-2
Median

Revision Notes

- **Median:** Median is that value of the variable which divides the group into two equal parts, one part comprising all values greater than the median value and the other part comprising all the values smaller than the median value.

Types of Series	Methods of Calculation of Median
1. Individual Series	**(i) Median (M) = size of $\left(\frac{N+1}{2}\right)$th item in case of odd number.** **(ii) In case of an even number, Media is taken as the average of the value of the two items lying on either side of $\frac{N+1}{2}$. Here, N = Sum total of items**
2. Discrete Series **(Frequency Array)**	**Media (M) = Value of $\left(\frac{N+1}{2}\right)$th item** **Here, N = Σf (Sum total of frequencies)**
3. Continuous Series **(Frequency Distribution Series)**	**First, Median class corresponding to the cumulative frequency th item is identified by taking the size of $\left[\frac{\frac{N}{2}-c.f.}{f_{median}}\right]\times C$** **Here, N = Σf**

Know the Terms

- **Positional Average:** Positional average are those averages whose values is worked out on the basis of their position in the statistical series.
- **Cumulative Frequency:** The cumulative frequency of a set of data or class intervals of a frequency table is the sum of the frequencies of the data up to a required level.
- **Sampling:** Sampling is a process used in statistical analysis in which a predetermined number of observations are taken from a larger population.

TOPIC-3
Mode

Revision Notes

- **Mode:** Mode of a set of observation is that value which occurs the greatest number of times, *i.e.*, with the highest frequency in a series.
- In Statistics it is generally represented by the letter Z.
- **Relationship between Mean, Median and Mode:**
  Mode = 3Median – 2Mean
- **Merits and Demerits of Mode**

Merits:

(i) It is simple to calculate (by inspection method).

(ii) Unaffected by extreme values.

(iii) Can be graphically determined with the help of histogram.

(iv) No need of complete data.

(v) It is the most representative value.

Demerits:

(i) The mode cannot be determined in case of biomodal and multimodal distribution.

(ii) It's not based on all the items of the series so not a true representative.

(iii) It's not rigidly defined measure.

(iv) Not capable of algebric treatment.

➢ **Methods of Calculation of Mode at a Glance:**

Types of Series	Methods of Calculation
1. Individual Series	**(i)** *Inspection Method*: Data are arrayed, and Mode is the value occurring most frequently. **(ii)** *Frequency Distribution Method*: Individual items are converted into frequency series. The Mode is taken as the value corresponding to highest frequency.
2. Discrete Series **(Frequency Array)**	**(i)** *Inspection Method*: The value corresponding to the highest frequency is the Modal value. **(ii)** *Grouping Method*: It involves preparation of 'grouping table' and 'analysis table'.
3. Continuous Series **(Grouped Frequency Distribu-tion)**	**(i)** After determining the 'Modal class' by grouping method, the following formula is applied: $\mathbf{Z} = L_1 + \frac{f_1 - f_0}{2f_1 - f_0 - f_2} \times C$ **(ii)** *Graphic Method*: Drawing histogram for the frequency distrubution.
4. Moderatery Asymmetric Distribution	**Mode = 3 Median – 2 Mean**

Know the Terms

- **Histogram:** A histogram is a plot that lets you discover, and show, the underlying frequency distribution (shape) of a set of continuous data.
- **Frequency:** The rate at which something occurs over a particular period of time or in a given sample.
- **Symmetrical Distribution:** Symmetrical distribution occurs when the values of variables occur at regular frequencies and the mean, median and mode occur at the same point.

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CHAPTER-10

CORRELATION

TOPIC-1
Correlation: Introduction

Revision Notes

➢ **Correlation :** It means a casual connection or relationship that exists between two series or groups of data.

➢ **Degrees of Correlation:**

(i) Perfect correlation = when coefficient of correlation (r) is +1 or –1

(ii) Absence of correlation = value of r will be 0.

(iii) **Limited degree of correlation:**

- **(a)** when correlation coefficient (r) is between +0.75 and +1, high degree of positive correlation and when it is between –0.75 to –1 high degree of negative correlation.
- **(b)** when (r) is close to zero, it's low degree correlation.
- **(c)** there is moderate degree of correlation when coefficient of correlation is neither too high nor too low, [positive (+0.25 and +0.75)] negative (between –0.25 and –0.75).

➢ **Significance of correlation:**

(i) Helps to know nature, degree, direction of relationship between different variables.

(ii) Helps in understanding the behaviour of economic events.

(iii) Helps in regression analysis.

(iv) Facilitates businessman in decision making by more reliable predictions.

➢ **Types of correlation:**

(i) **On the basis of direction of change:**

- **(a)** Positive correlation
- **(b)** Negative correlation

(ii) **On the basis of ratio of variations in the variables:**

- **(a)** Linear correlation
- **(b)** Non-linear correlation

(iii) **On the basis of number of variables:**

- **(a)** Simple correlation
- **(b)** Multiple correlation
- **(c)** Partial correlation

➢ **Methods of measuring correlation :**

(i) **Geometric method:** It helps in having a visual idea about the nature of association between two variables.

(ii) **Algebraic method :** Karl Pearson's coefficient of correlation and Spearman's Rank coefficient of correlation.

➢ **Scatter Diagram:** Scatter diagram is a graphic expression of the degree and direction of correlation.

➢ **Merits of Scatter Diagram:** Simple method, easily understandable, unaffected by extreme values.

➢ **Demerits of Scatter Diagram:** Rough measure, not a precise measure, unsuitable for long observations.

Know the Terms

- **Regression Analysis:** Regression is a statistical method used in finance, investing, and other disciplines that attempts to determine the strength and character of the relationship between one dependent variable (usually denoted by Y) and a series of other variables (known as independent variables).
- **Variable:** A variable is any entity that can take on different values.
- **Inflation:** Inflation is a quantitative measure of the rate at which the average price level of a selected package of goods and services in the economy rises in a certain period of time.
- **Linear Correlation:** Linear correlation refers to straight-line relationships between two variables.
- **Non-Linear Correlation:** If the rate of change is not constant, the correlation is considered non-linear. In other words, when all points on the scatter plot tend to lie near the smooth curve, the correlation is considered non-linear (curve)

TOPIC-2
Coefficient of Correlation

Revision Notes

➢ **Karl Pearson's Coefficient of Correlation:**

(i) When deviations are taken from actual mean

$$r = \frac{\Sigma xy}{N\sigma_x\sigma_y} \text{ or } \frac{\Sigma xy}{\sqrt{\Sigma x^2 \times \Sigma y^2}}$$

where, $x = (X - \overline{X})$ and $y = (Y - \overline{Y})$

(ii) When deviations are taken from the assumed mean $(\overline{A})$

$$r = \frac{\Sigma d_x d_y - \dfrac{(\Sigma d_x) \times (\Sigma d_y)}{N}}{\sqrt{\Sigma d_x^2 - \dfrac{(\Sigma d_x)^2}{N}} \times \sqrt{\Sigma d_y^2 - \dfrac{(\Sigma d_y)^2}{N}}}$$

where, $d_x = (X - \overline{A})$ and $d_y = (Y - \overline{A})$

- **Spearman's Rank Correlation Coefficient:**

  (i) When ranks are not repeated

$$R = 1 - \frac{6\Sigma D^2}{N^3 - N}$$

  where, D = rank difference, *i.e.*, $R_1 - R_2$; and N is the number of observations.

  (ii) In case ranks are repeated (when some items have equal ranks)

$$R = 1 - \frac{6\left[\Sigma D^2 + \frac{1}{12}(m^3 - m) + \frac{1}{12}(m^3 - m) + \ldots\right]}{N^3 - N}$$

  where, D is rank difference, m is the number of items with the same rank and N is the number of observations.

CHAPTER-11

INDEX NUMBERS AND MATHEMATICAL TOOLS IN ECONOMICS

TOPIC-1
Index Numbers : Introduction

Revision Notes

- **Index numbers :** These are tools for measuring the variation or changes in the magnitude of a variable like price, production etc.
- **Types of Index numbers :**
  (i) Price index numbers
  (ii) Quantity index numbers
  (iii) Value Index numbers
- **Features of index numbers:**
  (i) Measures relative changes
  (ii) Quantitative expression
  (iii) Measures changes over a period of time
  (iv) Specialised average
  (v) Capable of measuring changes in magnitude whose direct measurement is not possible
- **Uses of Index numbers:**
  (i) Barometer of economic activities

(ii) Measurement of purchasing power of money
(iii) Useful for economic planners
(iv) Useful for entrepreneurs
(v) Useful for income and wage policies
(vi) Useful for trade policies
(vii) Useful deflator

➢ **Limitations of Index numbers:**
(i) Only approximate indicator
(ii) Long run comparison not reliable
(iii) Not possible to construct a perfect Index numbers
(iv) Can be manipulated
(v) Limited use

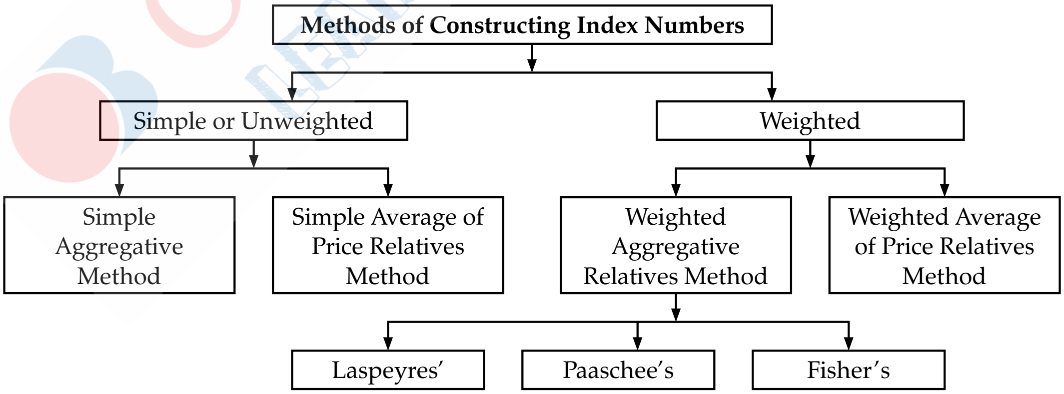
Know the Terms

- **Price Index Numbers:** Price index numbers measure the relative changes in the price of a commodity between two periods. Prices can be either retail or wholesale.
- **Quality Index Numbers:** These index numbers are considered to measure changes in the physical quantity of goods produced, consumed or sold for an item or a group of items.
- **Value Index Numbers:** It measures changes in total monetary worth. It combines price and quantity changes to present a more informative index. Index of GNP and index of retail sales are the examples.
- **Purchasing Power of Money:** The purchasing power of currency/money is the quantity of goods and services that can be bought with a monetary unit.

TOPIC-2
Methods of Constructing Index Numbers

Revision Notes

➢ **Methods of constructing Index numbers:**



(i) Simple or unweighted index number : It is based on the assumption that all the commodities are of equal importance. There are two Methods of constructing simple index numbers:

(a) **Simple Aggregative method:** In this method the aggregate prices of all the items in the current year are expressed as percentage of the same in the base year.

(b) **Simple Average of Price Relative Method :** A price relative is the percentage ratio of the price in the current year to price in the base year.

(ii) Weighted index number : When each and every commodity is given weight with its related importance is known as weighted index numbers. Quantity weights are used in weighted aggregative method while value weights are used in weighted average of Price Relative Method.

➢ **Formulae for Constructing Price Index Numbers at a Glance**

Types of Index	Method of Calculation
1. Simple (Unweighted) Index Numbers	(a) **Simple Aggregative Method** $P_{01} = \frac{\Sigma p_1}{\Sigma p_0} \times 100$
	(b) **Simple Average of Price-Relatives Method** $P_{01} = \frac{1}{N}\Sigma\left(\frac{p_1}{p_0} \times 100\right) \times 100$
	(a) **Weighted Aggregate Method** (i) **Laspeyres' Method / CPI** (Aggregative method) $P_{01}{}^{L} = \frac{\Sigma p_1 q_0}{\Sigma p_0 q_0} \times 100$
	(ii) **Paasche's Method** $P_{01}{}^{P} = \frac{\Sigma p_1 q_1}{\Sigma p_0 q_1} \times 100$
	(iii) **Fisher's Method** $P_{01}{}^{F} = \sqrt{\frac{\Sigma p_1 q_0}{\Sigma p_0 q_0} \times \frac{\Sigma p_1 q_1}{\Sigma p_0 q_1}} \times 100 = \sqrt{P_{01}^{L} \times P_{01}^{P}}$
	(b) **Weighted Average of Price-relative Method / CPI (Family budget method)** $P_{01} = \frac{\Sigma RW}{\Sigma W}$

TOPIC-3
Mathematical Tools used in Economics

Revision Notes

➢ **Function:** Function is a relationship among two or more variables.

➢ **Equation of a Line:** Equation of a line is an algebric expression of the functional relationship between dependent and independent variables.

➢ **Functional Forms:** Functional forms refers to the specific nature of the relationship between the variables in the function.

➢ **Linear function:** Function whose graph is a straight line is called a linear function.

➢ **Slope:** Slope is defined as the amount of change in the variable measured on vertical axis or Y axis with respect to change in the variable measured on the horizontal or X-axis.

➢ **Slope of a straight line :**

$$= \frac{\text{Vertical change}}{\text{Horizontal change}} = \frac{\Delta Y}{\Delta Y}$$

➢ **Slope of a vertical line:** It is undefined as it has a math processing error or "run" of zero and the value of denominator of the fraction is undefined.

➢ **Slope of a horizontal line:** It is zero because it has "rise" of zero.