Production, Industry & Infrastructure

- There are two main activities in an Economy such as production and consumption.
- Similarly, there are two kinds in economy, Producers and consumers.
- Well-being is made Possible by efficient production and by the Interaction between producers and consumers.
- In the interaction, consumers can be identified in two roles both of which generate well-Being.
- Consumers can be both customers of the producers and suppliers to the producers.
- The customer's well-being arises from the Commodities when they buy and consume.
- The Supplier's wellbeing is related to the income they receive when they sell the commodities and services.
- In an economy all are consumers but all are not producers or sellers.

Meaning of Production:

- Production is a process of combining Various material inputs and immaterial inputs in order to make something for consumption (the output).
- It is the act of creating an Output, a good or service which has value and Contributes to the utility of individuals.
- Production in economics refers to the Creation of those goods and services which Have exchange value.
- It means the creation of utilities.
- Utility means want satisfying Power of a product.
- According to the nature of utilities they are classified into form utility, Time utility and place utility.

Types of Utility:

Form utility:

- If the physical form of a commodity is changed, its utility may Increase.
- **Eg.** The demand and uses of cotton increases, if it is converted into clothes.

Place utility:

- If a commodity is transported from one place to another, its utility may Increase.
- **Eg.** If rice is transported from Tamil Nadu to Kerala, its utility will be more.

Time utility:

- If the commodity is stored for future usage, its utility may increase.
- **Eg.** If agricultural commodities which are used by the consumers throughout the year like Paddy, Wheat, etc. Are stored for future use its utility increases.

Types of Production:

There are three types of production. They are

- Primary production
- Secondary Production
- Tertiary Production

Primary Production:

- Primary production refers to the state of activity in which natural resources are Directly used.
- Since agricultural is given prime Importance, it is also referred as agricultural Sector production.
- Agriculture, forestry, fishing, mining and Oil extraction are examples to primary sector.

Secondary Production:

- The process of manufacturing products by using primary products as raw materials is Known as secondary level production.
- Since Industries are given prime importance, it is also referred as industrial sector production.
- Primary sector and Secondary sector Production Cotton (Primary sector) – Cotton Industry (Secondary Sector) = Cloth Production Iron ore (Primary sector) – Iron Industry (Secondary sector) = Material Production Manufacturing of cars, clothing, chemicals, Engineering and building etc.. are examples to Secondary sector.

Tertiary Production:

- Tertiary production is known as the Services which are not visible rendered by the teachers, doctors etc., are to the economy.
- Banking, insurance, education, health and Defence etc.. Are examples to service sector.

Factors of Production:

- Factors of production are known as Inputs of production which are transformed into output or products.
- There are two main Divisions of factors of production. They are
  - Primary factors of production
  - Derived factors of productionor Modern Factors of production or secondary factors of production.
- Primary factors of production are Land and Labour.
- Derived factors of production Are capital and organisation.
- Capital is known as investment and the organisation is known as organising Land, Labour and Capital for producing Products. Organisation is also known as Entrepreneurship.

Land:

- Land as a factor of production refers to All those natural resources or gifts of nature Which is provided freely to man.
- It includes Within itself several things such as land surface, Air, water, minerals, forests, rivers, lakes, seas, Mountains, climate, and weather.
- Thus, land Includes all things that are not made by man.

Characteristics of Land:

- Land is a Free Gift of Nature Man has to make efforts in order to acquire other factors of production. But to acquire land No human efforts are needed.
- Land is not the Outcome of human labour. Rather, it existed Even long before the evolution of man.
- Land is fixed in supply the total quantity of land does not undergo any change.

- It is limited and cannot be increased or decreased with human efforts.
- No alteration can be made in the surface area of land.
- Land is imperishable All man-made things are perishable and these may even go out of existence. But land is imperishable. Thus it cannot go out of existence.
- Land is a Primary Factor of Production in any kind of production process, we have to start with land.
- **For example,** it helps to provide raw materials for industries and to Produce crops
- Land is Immovable It cannot be transported from one place to another. **For instance,** no portion of India's Surface can be transported to some other Country.
- Land has some Original Indestructible Powers there are some original and indestructible Powers of land, which a man cannot destroy.
- Its Fertility may be varied but it cannot be destroyed completely.
- Land Differs in Fertility of land differs on different pieces of land.
- One piece of land may produce more and the other may be less. As a gift of nature, the initial supply price of Land is zero.
- However, when used in production, it becomes scarce.

Labour

- Labour is the human input into the Production process.
- Alfred Marshall defines Labour as, 'the use of body or mind, partly or Wholly, with a view to secure an income apart from the pleasure derived from the work'

Characteristics of Labour

- Labour is more perishable than other factors of production.
- It means labour cannot be Stored.
- The labour of an unemployed worker Is lost forever for that day when he does not Work.
- Labour can neither be postponed nor Accumulated for the next day.
- It will perish. Once it is lost, it is lost forever.

- Labour is an active factor of production. Neither land nor capital can yield much without labour.
- Labour is not homogeneous. Skill and Dexterity vary from person to person.
- Labour cannot be separated from the Labourer.
- Labour is mobile. Man moves from one Place to another from a low paid occupation to a high paid occupation.
- Individual labour has limited bargaining Power.
- He cannot fight with his employer for a rise in wages or improvement in work-place Conditions. However, when workers combine to form trade unions, the bargaining power of labour increases.

Division of Labour:

- The concept 'Division of Labour' was Introduced by Adam Smith in his book 'An Inquiry into the Nature and Causes of the Wealth of Nations'.
- Division of labour means dividing the Process of production into distinct and several Component processes and assigning each Component in the hands of a labour or a set of Labourers, who are specialists in that particular Process.
- **Example:** A Tailor stitches a shirt in full. In The case of Garments exporters, cutting of Cloth, stitching of hands, body, collars, holes for buttons, stitching of buttons etc., are done independently by different workers. Therefore, they are combining the parts into a whole shirt.

Merits of division of labour:

- It improves efficiency of labour when labour repeats doing the same tasks.
- It leads to the use of modern machinery in production, resulting in inventions. **Ex.** More's Telegraphic Codes.
- Time and raw materials are used very efficiently.

Demerits of division of labour:

- Repetition of the same task makes labourer to feel that the work is monotonous and stale.
- It kills the humanity in him.

- Narrow specialization reduces the possibility of labourer to find alternative avenues of Employment.
- This results in unemployment Reduce the growth of handicrafts and the Worker loses the satisfaction of having made a commodity in full.

Capital:

- Capital is manmade physical goods used to produce other goods and services. In the Ordinary language, capital means money.
- In Economics, capital refers to that part of man-Made wealth which is used for the further Production of wealth.
- All wealth is not capital but all capital is wealth. According to Marshall, 'Capital consists of those kinds of wealth other than free gifts of nature, which yield income'.

Forms of capital:

- Physical Capital or Material Resources Ex. Machinery, tools, buildings, etc.
- Money capital or monetary resources Ex. Bank deposits, shares and securities, etc.
- Human capital or Human Resources Ex. Investments in education, training and Health.

Characteristics of Capital:

- Capital is a passive factor of production
- Capital is man-made
- Capital is not an indispensable factor of Production
- Capital has the highest mobility
- Capital is more flexibility
- Capital is productive
- Capital Lasts Long
- Capital involves present sacrifice to get future benefits

Entrepreneur or Organisation:

- An entrepreneur is a person who combines the different factors of production (land, labour and capital), in the right proportion and initiates the process of production and also bears the risk Involved in it.

- The entrepreneur is also called 'Organizer'.
- In, modern times, an entrepreneur is called 'the Changing agent of the society'.
- He is not only responsible for producing the socially desirable Output but also to increase the social welfare.

Characteristics of Entrepreneur:

- Identifying profitable investible opportunities
- Deciding the location of the production unit
- Making innovations
- Deciding the reward payment
- Taking risks and facing uncertainties

Industry & Infrastructure:

- Industry is a process by which the raw Materials are changed into finished products.
- Many raw materials are not fit for human Consumption.
- Therefore, there is a need for Conversion.
- This transformation of commodities from one form to another form is the essence of Manufacturing industry or the secondary group of economic activities.
- Arrival of Science and Technology helped the man to fabricate raw Materials into finished products.
- The economic Strength of a country is always measured by the development of manufacturing industries.
- Therefore, any country in the world is basically Depends on the effective growth of industries for its economic development.

Economic Activity:

- Any action that involves in the production, Distribution, consumption or services is an Economic activity.

Basics of Economic Activities:

The following are the major and Fundamental economic activities.

- Primary Economic Activities

(e.g., Raw cotton production)

- Secondary Economic Activities
  (e.g., Spinning mill)
- Tertiary Economic Activities
  (e.g. Trade, Transport)
- Quaternary Activities (e.g. Banking sector)
- Quinary Activates (e.g. Judicial sector)

Primary Economic Activity:

- These are the Economic activities which have been originated in the very beginning.
- It includes the activities Such as, forestry, grazing, hunting, food gathering, Fishing, agriculture, mining, and quarrying.

Secondary Economic Activity:

- Secondary Activities are those that change raw materials into usable products through processing and manufacturing.
- Bakeries that make flour into Bread and factories that change metals and Plastics into vehicles are examples of secondary Activities.

Tertiary Economic Activity:

- Tertiary Economic activities are those that provide Essential services and support the industries to Function.
- Often it is called service industries; this level includes the transportation, finance, Utilities, education, retail, housing, medical and other services.
- We are educated by school. Since, school is doing service, it comes under Tertiary activity

Quaternary Economic Activity:

- Quaternary Activities are associated with the creation and Transfer of information, including research and Training.
- Often called information industries, this level has been dramatic growth as a result of advancements in technology and electronic Display and transmission of information.
- **E.g.,** we watch television.

- The programs are telecasted from television stations.
- It is an example of Quaternary activity.

Quinary Economic Activity:

- Quinary Economic activities refer to the high-level decision-Making processes by executives in industries, Business, education, and government.
- This Sector includes top executives or officials in the Fields of science and technology, universities, Health care etc.
- In our house, our parent Purchase household articles and make decisions by themselves in some situations.
- Similarly, the Council of ministers take decisions to introduce various people welfare schemes in the state.
- These two are examples of quandary activities.

Classification of Industries:

- Industries are classified on various bases in the following ways.

On the basis of Raw Materials:

Agro Based Industries:

- These industries use Plant and animal based products as their raw Materials.
- **Example:** Food Processing, Vegetable Oil, Cotton Textile, Dairy Products, etc.

Mineral Based Industries:

- These are the industries that use mineral ores as their Raw materials.
- Iron made from iron ore is the Product of mineral based industry.
- Cement, Machine Tools, etc.

Marine Based Industries:

- These industries Use products from the sea and oceans as raw Materials.
- **Example:** Processed Sea Food, Fish Oil manufacturing units etc.

Forest Based Industries:

- These industries Use Forest products as their raw materials.
- **Example:** Pulp & Paper, Furniture and Some Pharmaceuticals industries, etc.

Agro based industries:

- These industries draw their raw materials from agricultural sector.
- The following part discusses the agro based industries in India.

Cotton Textile Industry:

- Textile is a broad term which includes Cotton, jute, wool, silk and synthetic fibre Textiles.
- This sector in India is the second largest in the world.
- Traditional sectors like hand loom, Handicrafts and small power-loom units are the Biggest source of employment for millions of People in rural and semi urban areas.
- Currently, India is the third Largest producer of cotton and Has the largest loom arc and ring Spindles in the world.
- At present, Cotton textile industry is the largest organized modern industry of India.
- The higher concentration of textile mills in And around Mumbai makes it as "Manchester of India".
- Presence of black cotton soil in 179 India – Resources and Industries Maharastra, humid climate, presence of Mumbai port, availability of hydro power, good Market and well developed transport facility Favour the cotton textile industries in Mumbai.
- The major cotton textile industries are concentrated in the states of Maharashtra, Gujarat, West Bengal, Uttar Pradesh and Tamil Nadu. Coimbatore is the most important centre
- In Tamil Nadu with 200 mills out of its 435 and called as "Manchester of South India".
- Erode, Tirupur, Karur, Chennai, Thirunelveli, Madurai, Thoothukudi, Salem and Virudhunagar are the other major cotton textiles centres in the state.

Jute Textiles:

- Jute is a low priced fibre used mainly for making package materials like gunny bags.

- Today jute is blended with cotton and wool to produce textiles.
- This is the second important Textile industry in India after cotton textiles.
- Jute is the golden fibre which meets all the standards of goods packing with its natural, renewable, Bio degradable and eco-friendly products.
- The first jute mill in India was established at Rishra near, Kolkata in 1854 by the English man George Auckland.
- India tops in the production of raw jute and jute goods and second in the export of jute goods next to Bangladesh.
- Jute production includes gunny bags, canvas, Pack sheets, jute web, carpets, cordage, hessians and twines.
- Now jute is also being used in plastic Furniture and insulation bleached fibres to blend with wool.
- It is also mixed with cotton to make.
- Carpet and blankets.
- The major jute producing areas are in West Bengal and concentrated Along the Hooghly River within the radius of six Kilometre of Kolkata.
- Titagarh, Jagatdat, Budge-Budge, Haora and Bhadreshwar are the chief Centres of jute industry.
- Andhra Pradesh, Bihar, Uttar Pradesh, Assam, Chhattisgarh and Odisha are the other jute goods producing areas.
- National jute board is headquarter at Kolkata.

Silk Industry:

- India has been well known for the Production of silk since the ancient times.
- India is the second largest producer of raw silk next Only to China.
- Karnataka is the largest producer of Silk.
- Other major producers of silk are West Bengal, Jammu Kashmir, Bihar, Jharkhand, Chhattisgarh, Uttar Pradesh, Punjab, Assam and Tamil Nadu states.

Sugar Industry:

- Sugar can be produced from sugar cane, Sugar-beets or any other crop which have sugar Content.

- In India, sugar cane is the main source of sugar.
- At present this is the second largest agro Based industry of India after cotton textiles.
- India is the world's second largest producer of sugar Cane after Brazil.
- Sugar industry is decentralized and located near the sugarcane growing areas as they are weight loosing and bulky to transport.
- Uttar Pradesh is the largest producer of Sugar, producing about 50% of the country's Total.
- Other major producers are Maharashtra, Uttar Pradesh, Karnataka, Andhra Pradesh, Tamil Nadu, Bihar, Punjab, Gujarat, Haryana and Madhya Pradesh states.
- These states account for more than 90% of the sugar mills and sugar Production.

Forest based industries:

- Forest provides us with different types of Material which are used as raw material for certain industries like paper, lac, sports goods, Plywood etc.

Paper industry:

- Paper Industry produces numerous types of papers that comes in various use such as sheet Paper, paper boxes, tissues, paper bags, stationery, Envelopes and printed-paper products such as Books, periodicals, and newspapers.
- In India the Soft wood is the principal raw material used for making paper especially newsprint and high-Class printing papers.
- Paper is the pre-requisite for education and literacy and its use is an index of advancement in these two fields as well as the Overall well being of the society.
- The first successful effort was made in 1867 with the setting up of the Royal Bengal Paper mills at Ballyganj near Kolkata.
- The Raw Material for paper industry includes wood Pulp, bamboo, salai and sabai grasses, waste Paper and bagasse.

- West Bengal is the largest Producer of paper in the country followed by Madhya Pradesh, Odisha and Tamil Nadu
- The first paper mill of India was started in 1812 at Serampore in West Bengal.

Mineral based industries:

- Mineral based industries use both Metallic & non-metallic minerals as raw Materials.
- The major mineral based industry of country is the iron steel industry.

Iron and steel industries:

- Iron and steel industry is called a Basic metallurgical industry as its finished Product is used as raw material by host of other industries.
- Several industries like Engineering, heavy machines and machine Tools, automobile, locomotives and railway Equipment industries use iron and steel as their primary raw material.
- Due to this, the steel producing capacity of a country is generally taken as an indicator of its level of Industrial development.
- The modernization of the industry was Started in 1907 with the establishment of Tata Iron and Steel Company at Sakchi, now called Jamshedpur.
- Iron and steel industry of India is Mainly concentrated in the states of Jharkhand, West Bengal and Odisha.
- Proximity to the coal Fields of Jharia, Raniganj, Bokaro and Karanpura and the iron ore mines of Mayurbhanj, Keonjar and Brona are responsible for this.
- This area also has sufficient deposits of limestone, dolomite, Manganese and silicon which are required for the industry.

Automobile Industry:

- India is set to emerge not only as a Large domestic market for automobile Manufacturers, but also as a crucial link in the global automotive chain.
- It is one of the Most dynamic industrial groups in India.
- The first automobile industry of India was started in 1947.

- The industry is the Premier Automobiles Ltd located at Kurla (Mumbai).
- It was followed by the Hindustan Motors Ltd at Uttarpara (Kolkata) in 1948.
- At present, India is the 7th largest producer of automobile Manufacturers which include two wheelers, Commercial vehicles, passenger car, jeep, Scooty, scooters, motor cycles, mopeds and three wheelers.
- Major centres are at Mumbai, Chennai, Jamshedpur, Jabalpur, Kolkata, Pune, New Delhi, Kanpur, Bengaluru, Sadara, Lucknow and Mysuru.
- Tata Motors, Maruti Suzuki, Mahindra & Mahindra and Hindustan Motors are the largest passenger car manufacturers of Indian Companies in the country.
- Presence of foreign Car companies such as Mercedes Benz, Fiat, General Motors, Toyota and the recent entry of passenger car manufacturers BMW, Audi, Volkswagen and Volvo makes the Indian Automobile sector a special one.
- Tata Motors, Ashok Leyland, Eicher Motors, Mahindra & Mahindra and Ford Motors are the major Indian Companies which manfacture commercial Vehicles.
- MAN, ITEC, Mercedes-Benz, Scania and Hyundai are the foreign companies engage in the manufacture of commercial vehicles.
- Two-wheeler manufacturing is dominated by Indian companies like Hero, Bajaj Auto and TVS.
- Chennai is nicknamed as the "Detroit of Asia" due to the presence of major Automobile manufacturing units and allied Industries around the city.

Electrical and Electronic Industries:

- Heavy electrical industries manufacture Equipment used for power generation, Transmission and utilization.
- Turbines for steam and hydro power plants, boilers for thermal Power plants, generators, transformers, switch Gears etc.
- Are the chief products of this industry.
- The most important company in the field of Heavy electrical is Bharat Heavy Electricals Ltd (BHEL).

- It has its plants at Hardwar, Bhopal, Hyderabad, Jammu, Bengaluru, Jhansi and Tiruchirappalli.
- This Industry covers a wide Range of products including television sets, Transistor sets, telephone exchanges, cellular Telegram, computers and varied equipments for Post and railway, defence and meteorological Department.
- Bengaluru is the largest producer of Electronic goods in India, hence it is called as the "Electronic Capital of India".
- The other Major producers of electronic goods centres are Hyderabad, Delhi, Mumbai, Chennai, Kolkata, Kanpur, Pune, Lucknow, Jaipur and Coimbatore.

Software Industry:

- India is home to some of the finest software Companies in the world.
- The software companies In India are reputed across the globe for their Efficient IT and business related solutions.
- The Indian Software Industry has brought about a tremendous success for the emerging economy.
- In India, software industry began in 1970 With the entry of Tata Consultancy Services (TCS). Along with this, L & T, Infotech, i-Flex, Accenture, Cognizant, Galaxy Solutions India Pvt Ltd and ITC Infotech are the major software Industries in the country.
- At present, there are More than 500 software companies all over India.
- It exports software service to nearly 95 Countries in the world.
- The main centres of IT parks are located In Chennai, Coimbatore, Thiruvananthapuram, Bengaluru, Mysuru, Hyderabad, Visakhapatnam, Mumbai, Pune, Indore, Gandhi Nagar, Jaipur, Noida, Mohali and Srinagar.

On the basis of Size and Capital:

Large Scale Industries:

- The capital required for the establishment of an industry is more than one crore the industry is called as large scale Industry.

- Iron & steel, Oil refineries, Cement and Textile industries are the best examples for large scale industries.

Small Scale Industries:

- The capital required for the establishment of an industry is less than one crore;
- The industry is called as small scale Industry.
- Silk weaving and household industries belong to this category.
- Apart from the above cited industries, Cottage or household industries are also a type of small scale industry where the products are manufactured by hand, by the artisans with the help of family members.
- These industries are also classified and grouped as miscellaneous Categories.
- **Example:** Basket weaving, Pot Making, handicrafts etc.

On the basis of Ownership:

Private Sector Industries:

- These types of industries are owned and operated by Individuals or a group of individuals.
- **Example:** Bajaj Auto, Reliance, etc

Public Sector Industries:

- These types of Industries are owned and operated by the Government.
- Hindustan Aeronautics Limited (HAL), Bharat Heavy Electricals Ltd (BHEL), Steel Authority of India Ltd (SAIL) are the Examples of Public sector industries.

Joint Sector Industries:

- These types of Industries are owned and operated jointly by The Government and Individuals or a Group of Individuals.
- **Example:** Indian Oil Sky Tanking Ltd, Indian Synthetic Rubber Ltd, Mahanagar Gas Ltd, Maruti Udyog etc.,

Co-operative Sector Industries:

- Industries Of this kind are owned and operated by the Producers or suppliers of raw materials or Workers or both.

- Anand Milk Union Limited (AMUL) is the best example of the Co-operative Sector.

Factors responsible for Location of Industries:

- Industrial locations are complex in Nature.
- They are influenced by the availability of many factors. Some of them are: Raw Materials, Land, Water, Labour, Capital, Power, Transport, and Market.
- The locational factors of industries are grouped into Geographical factors and Non-Geographical factors.

Geographical Factors:

Raw Material:

- Bulky goods and weight losing materials cannot be transported for long Distances.
- Therefore, industries like iron and Steel and sugar industries are located near the Place of availability of iron ore and sugar cane respectively.
- Steel Plant in Salem is located Near Kanjamalai, where iron ore is available.
- Similarly, Sugar industries are located near the Sugarcane growing areas.

Power:

- Power is base and essential to run the Entire industry.
- Power is mostly generated from the conventional sources like coal, mineral oil, and water.
- So, any one of these sources must be located near the industries to fulfil its power Requirement.

Labour:

- Availability of cheap and skilled Labour is another important requirement for Labour intensive industries (e.g., Tea industry).

Transport:

- It is needed for transporting raw Materials to the industries and also for sending the finished products to the market.
- Availability Of easy transportation always influences the Location of an industry.

- So, the junction points of waterways, roadways and railways become Active centres of industrial activity.
- **Storage and Warehousing:** The finished Goods should reach the market at the end of the process of manufacturing.
- Hence, such finished products should be stored at suitable Storage or warehouse till the goods are taken to the market.

Topography:

- The site that is selected for the establishment of an industry must be flat.
- So, it can be well served by different modes of Transport.

Climate:

- Climate of the area selected for an Industry is also one of the important factors of location of industries.
- Extreme climate Condition is not suitable for the successful Industrial growth.
- Moreover, there are certain Industries which require a specific climate.
- **Example:** Cool- humid climate is ideal for cotton Textile industry.
- As Coimbatore and Tiruppur Have such type of climate, many cotton textile Industries are located in this zone.

Water Resources:

- Availability of water is another important factor that influences
- The industrial location.
- Many industries are established near rivers, canals, and lakes for this reason.
- Iron and steel industries, textile Industries and chemical industries require plenty of water, for their proper functioning.

Non-Geographical Factors:

- **Capital:** Capital or huge investment is needed for the establishment of industries without which no industry can be established.

Availability of Loans:

- In most cases, it is not possible to start an industry with enough capital in hand.
- So, the investors seek loan to start the industries.

- Thus, the organizational set up which Provides loan and insurance are required.

Government Policies/Regulations:

- Government policies are another important Factor that influences industrial location.
- The Government sets certain restriction in the Allocation of land for industries in order to reduce regional disparities, to control excessive Pollution and to avoid the excessive clustering of industries in big cities.
- So, the policies also affect the industrial locations.

Industrial Policy Resolution:

- Industrial Policy Resolution, 1948 role of the State in industrial development both as an entrepreneur and authority.
- India's model- Mixed Economic Model.
- It classified industries into four broad areas
  - **Strategic Industries (Public Sector):** Central Government had monopoly-Arms and ammunition, atomic energy and Rail transport.
  - **Basic/Key Industries (Public-cum Private Sector):** like coal, iron & steel, aircraft manufacturing, ship-building.To be set-up by the Central Government.
  - **Important Industries (Controlled Private Sector):** continue under private sector however, the central government, in consultation with the state government, had general control over them.
  - **Other Industries (Private and Cooperative Sector):** All other industries which were not included in the above mentioned three categories were left open for the private sector

Industrial Policy Resolution, 1956

- **Schedule A**
  - This schedule had 17 industrial areas in which the Centre was given complete monopoly

- **Schedule B**
  - There were 12 industrial areas put under this schedule in which the state governments were supposed to take up the initiatives with a more expansive follow up by the private sector.
- **Schedule C**
  - All industrial areas left out of Schedules A and B were put under this in which the private enterprises had the provisions to set up industries.
- **Provision of Licencing:** This provision established the so-called Licence-Quota-Permit regime (raj) in the economy
- **Expansion of the Public Sector:** Emphasis was on heavy industries.
  - Regional Disparity
  - Emphasis on Small Industries
  - Agricultural Sector

Industrial Policy Statement, 1969

- Aimed at solving the shortcomings of the licensing policy started by the Industrial Policy of 1956.
- The Monopolistic and Restrictive Trade Practices (MRTP) Act was passed.
- The firms with assets of `25 crore or more were put under obligation of taking permission from the GoI.
- For the redressal of the prohibited and restricted practices of trade, the government did set up an MRTP Commission.

Industrial Policy Statement, 1973

- A new classificatory term i.e., core industries was created.
- Out of the six core industries defined by the policy, the private sector may apply for licences for the industries which were not a part of schedule A of the Industrial Policy, 1956.

Some industries were put under the reserved list

- The concept of joint sector was developed which allowed partnership among the Centre, state and the private sector while setting up some industries.
- To regulate foreign exchange the Foreign Exchange Regulation Act (FERA) was passed in 1973.

- A limited permission to foreign investment was given, with the multinational corporations (MNCs) being allowed to set up subsidiaries in the country.

Industrial Policy Statement, 1977

- Foreign investment in the unnecessary areas were prohibited.
- Emphasis on village industries with a redefinition of the small and cottage industries.
- Decentralised industrialisation was given attention with the objective of linking the masses to the process of industrialisation.
- Democratic decentralisation got emphasised and the khadi and village industries were restructured.
- Serious attention was given on the level of production and the prices of essential commodities of everyday use.

Industrial Policy Resolution, 1980

- Foreign investment via the technology transfer route was allowed again.
- The MRTP Limit was revised upward to `50 crore to promote setting up of bigger companies.
- The DICs were continued with. z Industrial licensing was simplified.
- Overall liberal attitude followed towards the expansion of private industries.

Industrial Policy Resolution, 1985 & 1986

- Foreign investment was further simplified with more industrial areas being open for their entries.
- The MRTP Limit was revised upward to `100 crore promoting the idea of bigger companies.
- The provision of industrial licensing was simplified.
- High level attention on the sunrise industries such as telecommunication, computerisation and electronics.
- Modernization and the profitability aspects of public sector undertakings were emphasized.
- Industries based on imported raw materials got a boost.
- Under the overall regime of FERA, some relaxations concerning the use of foreign exchange were permitted to boost essential technology.

- The agriculture sector was attended with a new scientific approach with many technology missions being launched by the government.

New Industrial Policy (Economic Reforms) 1991

- **De-reservation of public sector:** Presently, only two sectors- Atomic Energy and Railway operations are reserved exclusively for the public sector.
- **De-licensing:** Abolition of Industrial Licensing except for Electronic aerospace and defence equipment, Specified hazardous chemicals, Industrial explosives, Cigars and cigarettes of tobacco and manufactured tobacco substitutes.
- **Disinvestment of Public Sector:** Government stakes in Public Sector Enterprises were reduced to enhance their efficiency and competitiveness.

MSME (Micro, Small, and Medium Enterprises)

- In accordance with the Micro, Small, and Medium Enterprises Development (MSMED) Act in 2006, the enterprises are classified into two divisions:
  - **Manufacturing enterprises** – engaged in the manufacturing or production of goods in any industry
  - **Service enterprises** – engaged in providing or rendering services
- By providing amendment NEW definition of MSME
- **Micro enterprises:** Investments not exceeding `1 crore and turnover of `5 crore.
- **Small enterprises:** Investment up to `10 crore and turnover of up to `50 crore
- **Medium enterprises:** Investments not exceeding `50 crore and turnover of `250 crore.
- MSME ministry has set a target to up its contribution to GDP to 50% by 2025 as India becomes a $5 trillion economy.
- A person willing to establish a micro, medium or small enterprise shall file registration at the Udyam registration portal.
- The registration is based on self-declaration.
- Upon registration, the enterprise is provided with a unique number called the Udyam Registration Number (URN).
- Udyam Sakhi portal was launched for women entrepreneurs separately.

Disinvestment

- Disinvestment means sale or liquidation of assets by the government, usually Central and state public sector enterprises, projects, or other fixed assets.
- Disinvestment in PSUs means the Government selling/ diluting its stake (share) in Public Sector Undertakings in which it has a majority holding.
- Disinvestment is carried out as a budgetary exercise, under which the government announces yearly targets for disinvestment for selected PSUs.
- The Department of Investment and Public Asset Management (DIPAM) under the Ministry of Finance has been made the nodal department for the strategic stake sale in the Public Sector Undertakings (PSUs).
- Token Disinvestment Selling minority shares of Public Enterprises, to another entity be it public or private is disinvestment.
- In this the government retains ownership of the enterprise.
- Strategic Disinvestment When the government sells majority shares in an enterprise, that is strategic disinvestment/sale.
- Here, the government gives up the ownership of the entity as well.

Special Economic Zones (SEZ)

- The SEZ Act 2005 provides a legal framework for SEZs in India.

Salient Features of SEZs

- Designated duty-free enclave to be treated as a territory outside the customs territory of India.
- Goods entering into SEZs from the domestic tariff area are treated as exports from India and goods supplied from the SEZ to the DTA are treated as imports into India.
- No license required for import.
- Manufacturing or service activities allowed.
- Units are required to achieve Positive Net Foreign Exchange within a period of five years.
- Domestic sales subject to full customs duty
- No routine examination by customs authorities of export/import cargo.
- SEZ Developers /Co-Developers and Units enjoy Direct Tax and Indirect Tax benefits as prescribed in the SEZs Act, 2005.

National Investment & Manufacturing Zones (NIMZ)

- They are one of the important instruments of the National Manufacturing Policy, 2011.
- NIMZs are envisaged as large areas of developed land with the requisite eco-system for promoting world class manufacturing activity.
- NIMZs are different from SEZs in terms of size, level of infrastructure planning, governance structures related to regulatory procedures, and exit policies.

Industrial Corridors

- Composed of multi-modal transport services with the intent to stimulate industrial development that would pass through the states.
- Projects will be implemented through National Industrial Corridor Development and Implementation Trust (NICDIT)- an apex body under the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry.
- Manufacturing is a key economic driver in these projects.
    - Delhi-Mumbai Industrial Corridor (DMIC),
    - Chennai-Bengaluru Industrial Corridor
    - Bengaluru-Mumbai Economic Corridor
    - Amritsar-Kolkata Industrial Corridor (AKIC)
    - East Coast Economic Corridor (ECEC)
    - Vizag-Chennai Industrial Corridor (VCIC) is the first coastal economic corridor in the country.

Fourth Industrial Revolution (IR 4.0)

- It includes emerging technologies like robotics, artificial intelligence, quantum computing, biotechnology, Internet of Things (IoT), 3D printing, etc.
- It merges physical, digital and biological spheres.

Major challenges of Indian Industries:

Industries in India face many problems. Some major problems are listed below.

- Shortage and fluctuation in Power Supply.
- Non- availability of large blocks of land.

- Poor access to credit.
- High rate of interest for borrowed loan.
- Non- availability of cheap labourers.
- Lack of technical and vocational training for employees.
- Inappropriate living conditions nearby Industrial estates

INFRASTRUCTURE

Investment models:

- **Public Investment Model:** In this model Government requires revenue for investment that mainly comes through taxes.
- As the world is facing the prospect of an extended period of weak economic growth, by enhancing public-sector investment large pools of savings can be channelized into productivity.
- Properly targeted public investment can do much to boost economic performance, generating aggregate demand quickly, fueling productivity growth by improving human capital, encouraging technological innovation, and spurring private-sector investment by increasing returns.
- Though public investment cannot fix a large demand shortfall overnight, it can accelerate the recovery and establish more sustainable growth patterns.
- **Private Investment Model:** For a country to grow and increase its production investment is required.
- Presently tax revenue of India is not adequate to meet this demand so government requires private investment.
- Private investment can be source from domestic or international market.
- From abroad private investment comes in the form of FDI or FPI.
- Private investment can generate more efficiency by creating more competition, realization of economies of scale and greater flexibility than is available to the public sector.
- **Public-Private Partnership Model:** PPP is an arrangement between government and private sector for the provision of public assets and/or public services.

- Public-private partnerships allow large-scale government projects, such as roads, bridges, or hospitals, to be completed with private funding.
- In this type of partnership, investments are undertaken by the private sector entity, for a specified period of time.
- These partnerships work well when private sector technology and innovation combine with public sector incentives to complete work on time and within budget.
- As PPP involves full retention of responsibility by the government for providing the services, it doesn't amount to privatization.
- There is a well defined allocation of risk between the private sector and the public entity.
- Private entity is chosen on the basis of open competitive bidding and receives performance linked payments.
- PPP route can be alternative in developing countries where governments face various constraints on borrowing money for important projects.
- It can also give required expertise in planning or executing large projects.

Models of Public Private Partnership (PPP):

- Commonly adopted model of PPPs include Build-Operate-Transfer (BOT),Build-Own-Operate (BOO), Build-Operate-Lease-Transfer (BOLT), Design-Build-Operate-Transfer (DBFOT), Lease-Develop-Operate (LDO), Operate-Maintain-Transfer (OMT), etc.
- These models are different on level of investment, ownership control, risk sharing, technical collaboration, duration, financing etc.
- **BOT:** It is conventional PPP model in which private partner is responsible to design, build, operate (during the contracted period) and transfer back the facility to the public sector.
- Private sector partner has to bring the finance for the project and take the responsibility to construct and maintain it.
- Public sector will allow private sector partner to collect revenue from the users.

- The national highway projects contracted out by NHAI under PPP mode is a major example for the BOT model.
- **BOO:** In this model ownership of the newly built facility will rest with the private party.
- On mutually agreed terms and conditions public sector partner agrees to 'purchase' the goods and services produced by the project.
- **BOOT:** In this variant of BOT, after the negotiated period of time, project is transferred to the government or to the private operator.
- BOOT model is used for the development of highways and ports.
- **BOLT:** In this approach, the government gives a concession to a private entity to build a facility (and possibly design it as well), own the facility, lease the facility to the public sector and then at the end of the lease period transfer the ownership of the facility to the government.
- **DBFO:** In this model, entire responsibility for the design, construction, finance, and operation of the project for the period of concession lies with the private party.
- **LDO:** In this type of investment model either the government or the public sector entity retains ownership of the newly created infrastructure facility and receives payments in terms of a lease agreement with the private promoter.
- It is mostly followed in the development of airport facilities.

PM Gati Shakti Scheme

Aim:

- To ensure integrated planning and implementation of infrastructure projects in the next four years, with focus on expediting works on the ground, saving costs and creating jobs.
- Subsume `110 lakh crore National Infrastructure Pipeline that was launched in 2019.

Target:

- 11 industrial corridors;
- 2 new defence corridors (Tamil Nadu and UP);

- Extending 4G connectivity to all villages;
- Adding 17,000 kms to the gas pipeline network; Expanding NH; etc.

Dedicated Freight Corridor (DFC): High speed and high-capacity railway corridor that is exclusively meant for the transportation of freight Seamless integration of better infrastructure and state of the art technology.

Eastern Dedicated Freight Corridor (EDFC) Route: Sahnewal (Ludhiana) in Punjab → Dankuni in West Bengal

Covered States: Punjab, Haryana, Uttar Pradesh, Bihar, Jharkhand and West Bengal

Route has: coal mines, thermal power plants and industrial cities.

Major Funding: World Bank

Western Dedicated Freight Corridor (WDFC) Route: Dadri in Uttar Pradesh to Jawaharlal Nehru Port Trust in Mumbai Covered States: Haryana, Rajasthan, Gujarat, Maharashtra and Uttar Pradesh.

Major Funding: Japan International Cooperation Agency

Connecting Link for Eastern and Western Arm: Under construction between Dadri and Khurja.

Sagarmala

- It Seeks to develop a string of ports around India's coast.
- **Objective:** to promote "Port-led development" along India's 7500 km long coastline.
- **Aims:** To develop access to new development regions with intermodal solutions and promotion of the optimum modal split, enhanced connectivity with main economic centres and beyond through expansion of rail, inland water, coastal and road services.
- **Nodal ministry:** The Union Ministry of Shipping has been appointed as the nodal ministry for this initiative.
- **Implementing Agency (State):** State governments would set up State Sagarmala committees, headed by the chief minister or the minister in charge of ports.
- **Central level:**Sagarmala Development Company (SDC) will be set up to provide equity support to assist various special purpose vehicles (SPVs) setup for various projects.

BharatmalaPariyojana

- Umbrella program for the highways sector envisaged by the Ministry of Road Transport and Highways.
- **Objective:** To optimise the efficiency of freight and passenger movement across the country by bridging critical infrastructure gaps through effective interventions.
- **Economic Corridors:** These are integrated networks of infrastructure within a geographical area designed to stimulate economic development.
- **Greenfield Projects:** They lack constraints imposed by prior work on the site. Typically, it entails development on a completely vacant site and architects start completely from scratch.
- **Brownfield Projects:** They carry constraints related to the current state of the site and might be contaminated or have existing structures that architects have to tear down or modify in some way before the project can move forward.

National Infrastructure Pipeline (NIP)

- **Announced:** In the budget speech of 2019-2020.
- One stop solution for all stakeholders looking for information on infrastructure projects in New India.
- NIP includes economic and social infrastructure projects.
- During the fiscal years 2020 to 2025, sectors such as Energy (24%), Roads (19%), Urban (16%) and Railways (13%) amount to around 70% of the projected capital expenditure in infrastructure in India.
- It has outlined plans to invest more than `102 lakh crore on infrastructure projects by 2024-25, with the Centre, States and the private sector to share the capital expenditure in a 39:39:22 formula