

## **CHAPTER 5**

### **Secondary Activities**

#### **2MARKS**

**Question 1.**

**What is the advanced stage of mechanization?**

**Answer:**

Automation is the advanced stage of mechanization.

**Question 2.**

**Which is a vital factor for the industry to be located closer to the raw material?**

**Answer:**

Perishability is a vital factor affecting location of industries close to raw material.

**Question 3.**

**What are technopolies?**

**Answer:**

High tech industries which are regionally concentrated, self sustained and highly specialized are called technopolies.

**Question 4.**

**Define secondary activity.**

**Answer:**

Secondary activities involve transforming of the raw material (primary products) into finished goods of higher value. They are converted with manufacturing, processing and construction (infrastructure industries).

**Question 5.**

**What is manufacturing?**

**Answer:**

Manufacturing is a process which involves transforming raw

materials into finished goods of higher value for sale in local or distant markets.

**Question 6.**

**What are the criteria for classifying industry based on size?**

**Answer:**

The amount of capital invested, number of workers employed and volume of production determine the size of industry.

**Question 7.**

**Give examples of cottage industry.**

**Answer:**

Basket weaving, matchsticks making, pottery, figurines, furniture, containers, leather, pottery, jewellery, artifacts from bamboo, wood, etc, are examples of cottage industries.

**Question 8.**

**Give examples of large scale industry.**

**Answer:**

Iron-steel, shipbuilding, automobile are some of the examples of large scale industry.

**Question 9.**

**What is agri-business?**

**Answer:**

Agri-business is commercial farming on an industrial scale often financed by business whose main interests lie outside agriculture. For example, large corporations in tea plantation business.

**Question 10.**

**Give example of a technopolies.**

**Answer:**

The Silicon Valley near San Francisco and Silicon Forest near Seattle are examples of technopolies.

**Question 11.**

**Which area is called ‘rust bowl’ and why?**

**Answer:**

Pittsburgh is called ‘rust bowl’ because earlier there were many iron and steel plants but now they have shifted to other places.

**Question 12.**

**What is the importance of Ruhr region of Germany?**

**Answer:**

It has been a major industrial region of Europe for a long time. With time the demand for coal has declined as petrol, diesel, CNG, solar energy have replaced coal and therefore coal industry is shrinking but as iron and steel form the basis of industrial growth. The Ruhr region is responsible for 80% of Germany’s steel production.

**Question 13.**

**What are mini steel plants?**

**Answer:**

These are less expensive to build and operate and can be located near markets because of the abundance of scrap metal, which is the main input. Traditionally, most of the steel was produced at large integrated plants, but mini mills are limited to just one-step process steel making and are gaining ground.

## **5MARKS**

**Question 1.**

**What are footloose industries?**

**Answer:**

Footloose industries can be located in a wide variety of places. They are not dependent on any specific raw material, weight losing or otherwise. They largely depend on component parts which can be obtained anywhere. They produce in small quantity and also employ a small labour force. These are generally not polluting industries. The important factor in their location is accessibility by road network.

### **Question 2.**

**Discuss three sub-sectors of cotton textile industry.**

#### **Answer:**

Cotton textile industry has three sub-sectors i.e. handloom, power loom and mill sectors.

- Hand loom sector is labour intensive and provides employment to semi skilled workers. It requires small capital investment. This sector involves spinning, weaving and finishing of the fabrics.
- The powerloom sector introduces machines and becomes less labour intensive and the volume of production increases.
- Cotton textile mill sector is highly capital intensive and produces fine clothes in bulk.

### **Question 3.**

**What is an industry? Classify industry based on output.**

#### **Answer:**

An industry is a geographically located manufacturing unit maintaining books of accounts and, records under a management system. As the term industry is comprehensive, it is also used as synonymous with 'manufacturing'. When one uses terms like 'steel industry' and 'chemical industry' one thinks of factories and processes. Based on output there are two types of industries:

- Basic industries: The industry whose products are used to make other goods by using them as raw materials are basic industries. Eg. Iron and steel industry for making machineries for textile industries to make clothes.
- Consumer goods industries: The consumer goods industries produced goods which are consumed by consumers directly. Example, industries producing breads and biscuits, tea, soaps and toiletries, paper for writing, televisions, etc. are consumer goods or non-basic industries.

#### **Question 4.**

**Classify industry based on ownership.**

**Answer:**

Based on ownership, industries are classified as:

- Public Sector Industries are owned and managed by government. In India, there were a number of Public Sector Undertakings (PSUs). Socialist countries have many state owned industries. Mixed economies have both Public and Private sector enterprises.
- Private Sector Industries are owned by individual investors. These are managed by private organisations. In capitalist countries, industries are generally owned privately.
- Joint Sector Industries are managed by joint stock companies or sometimes the private and public sectors together establish and manage the industries.

#### **Question 5.**

**What are the characteristics of traditional large scale industrial region?**

**Answer:**

Traditional large scale industrial regions are based on heavy industry, often located near coal-fields and engaged in metal smelting, heavy engineering, chemical manufacture or textile production. These industries are now known as smokestack industries. Traditional industrial regions can be recognized by:

- High proportion of employment in manufacturing industry. High-density housing, often of inferior type, and poor services. Unattractive environment, for example, pollution, waste heaps, and so on.
- Problems of unemployment, emigration and derelict land areas caused by closure of factories because of a worldwide fall in demand.

## 7MARKS

### Question 1.

**Discuss the major trends of modern industrial activities especially in the developed countries of the world.**

#### Answer:

Traditional large scale industries were based on heavy industry, often located near coal-fields and engaged in metal smelting, heavy engineering, chemical manufacture or textile production. These industries are now known as smokestack industries. With modernization, there has been changes in industrial sector which have led to the decay of some areas, and there are problems of industrial waste and pollution. The future prosperity of these traditional areas has shifted from their traditional activities to high technology, or simply high-tech, which is the latest generation of manufacturing activities. It is best understood as the application of intensive research and development (R and D) efforts leading to the manufacture of products of an advanced scientific and engineering character.

Robotics on the assembly line, computer- aided design (CAD) and manufacturing, electronic controls of smelting and refining processes, and the constant development of new chemical and pharmaceutical products are notable examples of a high-tech industry. Neatly spaced, low, modem, dispersed, office-plant-lab buildings rather than massive assembly structures, factories and storage areas mark the high-tech industrial landscape. The Silicon Valley near San Francisco and Silicon Forest near Seattle are examples of technopolies. The traditional industrial regions have shifted their focus from traditional large scale industries to assembly plants (footloose industries), new chemical plants, universities, out of town shopping centres etc.

### Question 2.

**Give a brief account on the following:**

**(a) Iron and Steel industry**

**(b) Cotton Textile Industry**

#### Answer:

**(a) The iron and steel industry:**

It forms the base of all other industries and, therefore, it is called a

basic industry. It is basic because it provides raw material for other industries such as machine tools used for further production. It may also be called a heavy industry because it uses large quantities of bulky raw materials and its products are also heavy. Iron is extracted from iron ore by smelting in a blast furnace with carbon (coke) and limestone. The molten iron is cooled and moulded to form pig iron which is used for converting into steel by adding strengthening materials like manganese. The large integrated steel industry is traditionally located close to the sources of raw materials – iron ore, coal, manganese and limestone – or at places where these could be easily brought, e.g. near ports. But in mini steel mills access to markets is more important than inputs.

**Distribution:** This industry is one of the most complex and capital-intensive industries and is concentrated in the advanced countries of North America, Europe and Asia. In U.S.A, most of the production comes from the north

Appalachian region (Pittsburgh), Great Lake region. The industry has also moved towards the southern state of Alabama. Pittsburg area is now losing ground. It has now become the “rust bowl” of U.S.A. In Europe, U.K., Germany, France, Belgium, Luxembourg, the Netherlands and Russia are the leading producers. In Asia, the important centres include Nagasaki and Tokyo-Yokohama in Japan; Shanghai, Tienstin and Wuhan in China; and Jamshedpur, Kulti-Bumpur, Durgapur, Rourkela, Bhilai, Bokaro, Salem, Visakhapatnam and Bhadravati in India centres.

**(b) Cotton textile industry:**

Cotton textile industry has three sub-sectors i.e. handloom, powerloom and mill sectors. Handloom sector is labour-intensive and provides employment to semi-skilled workers. It requires small capital investment. This sector involves spinning, weaving and finishing of the fabrics. The powerloom sector introduces machines and becomes less labour intensive and the volume of production increases. Cotton textile mill sector is highly capital intensive and produces fine clothes in bulk. Cotton textile manufacturing requires good quality cotton as raw material. India, China, U.S.A, Pakistan,

Uzbekistan, Egypt produce more than half of the world's raw cotton. The U.K, NW European countries and Japan also produce cotton textile made from imported yam. Europe alone accounts for nearly half of the world's cotton imports.

The industry has to face very stiff competition with synthetic fibres hence it has now shown a declining trend in many countries. With the scientific advancement and technological improvements the structure of industries changes. For example, Germany recorded constant growth in cotton textile industry since Second World War till the seventies but now it has declined. It has shifted to less developed countries where labour costs are low.

### **Question 3.**

**Define manufacturing. List the characteristics of modern large scale manufacturing.**

#### **Answer:**

Manufacturing literally means “to make by hand”. However, now it includes goods ‘made by machines’. It is essentially a process which involves transforming raw materials into finished goods of higher value for sale in local or distant markets. Modern large scale manufacturing has the following characteristics: Specialization of Skills/Methods of Production: Under the ‘craft’ method factories produce only a few pieces which are made-to-order. So the costs are high. On the other hand, mass production involves production of large quantities of standardized parts by each worker performing only one task repeatedly.

**Mechanization:** Mechanization refers to using gadgets which accomplish tasks. Automation (without aid of human thinking during the manufacturing process) is the advanced stage of mechanization. **Technological Innovation:** Technological innovations through research and development strategy are an important aspect of modern manufacturing for quality control, eliminating waste and inefficiency, and combating pollution. **Organisational Structure and Stratification:** Modern manufacturing is characterized by:



- a complex machine technology
- extreme specialization and division of labour for producing more goods with less effort, and low costs
- vast capital
- large organisations
- executive bureaucracy.

#### **Question 4.**

**Describe the factors that affect the location of industries.**

#### **Answer:**

Major concentrations of modern manufacturing have flourished in a few number of places. These cover less than 10 per cent of the world's land area. These nations have become the centres of economic and political power. Industries maximise profits by reducing costs. Therefore, industries should be located at points where the production costs are minimum. Some of the factors influencing industrial locations are as under:

**Access to Market:** The existence of a market for manufactured goods is the most important factor in the location of industries. 'Market' means people who have a demand for these goods and also have the purchasing power (ability to purchase) to be able to purchase from the sellers at a place. Remote areas inhabited by a few people offer small markets. The developed regions of Europe, North America, Japan and Australia provide large global markets as the purchasing power of the people is very high. The densely populated regions of South and South-east Asia also provide large markets.

**Access to Raw Material:** Raw material used by industries should be cheap and easy to transport. Industries based on cheap, bulky and weight-losing material (ores) are located close to the sources of raw material such as steel, sugar, and cement industries. Perishability is a vital factor for the industry to be located closer to the source of the raw material. Agro-processing and dairy products are processed close to the sources of farm produce or milk supply respectively.

**Access to Labour Supply:** Labour supply is an important factor in the location of industries. Some types of manufacturing still require skilled labour. Increasing mechanization, automation and flexibility of industrial processes have reduced the dependence of industry upon the labours.

**Access to Sources of Energy:** Industries which use more power are located close to the source of the energy supply such as the aluminium industry. Earlier coal was the main source of energy, today hydroelectricity and petroleum are also important sources of energy for many industries.

**Access to Transportation and Communication Facilities:** Speedy and efficient transport facilities to carry raw materials to the factory and to move finished goods to the market are essential for the development of industries. The cost of transport plays an important role in the location of industrial units. Communication is also an important need for industries for the exchange and management of information.

**Government Policy:** Governments adopt 'regional policies' to promote 'balanced' economic development and hence set up industries in particular areas.

**Access to Agglomeration Economies/ Links between Industries:** Many industries benefit from nearness to a leader-industry and other industries. These benefits are termed as agglomeration economies. These factors operate together to determine industrial location.

### **Question 5.**

**Classify industry based on inputs. Ans. On the basis of the raw materials used, the industries are classified as:**

- (a) agro-based
- (b) mineral based
- (c) chemical based
- (d) forest based and
- (e) animal based.

### **Answer:**

(a) Agro based Industries:

Agro processing involves the processing of raw materials from the field and the farm into finished products for rural and urban markets. Major agro-processing industries are food processing, sugar, pickles, fruits juices, beverages (tea, coffee and cocoa), spices and oils fats and textiles (cotton, jute, silk), rubber, etc. Food and Agro processing includes canning, producing cream, fruit processing and confectionary. While some preserving techniques, such as drying,

fermenting and pickling, have been known since ancient times, these had limited applications to cater to the pre-industrial Revolution demands.

**(b) Mineral based Industries:**

These industries use minerals as a raw material. Some industries use ferrous metallic minerals which contain ferrous (iron), such as iron and steel industries but some use non-ferrous metallic minerals, such as aluminium, copper and jewellery industries. Many industries use non-metallic minerals such as cement and pottery industries.

**(c) Chemical based Industries:**

Such industries use natural chemical minerals, e.g. mineral-oil (petroleum) is used in petrochemical industry. Salts, sulphur and potash industries also use natural minerals. Chemical industries are also based on raw materials obtained from wood and coal. Synthetic fibre, plastic, etc. are other examples of chemical based industries.

**(d) Forest based raw Material using Industries:**

The forests provide many major and minor products which are used as raw material. Timber for furniture industry, wood, bamboo and grass for paper industry, lac for lac industries come from forests.

**(e) Animal based Industries:**

Leather for leather industry and wool for woollen textiles are obtained from animals. Besides, ivory is also obtained from elephant's tusks.

**Question 6.**

**Give the characteristics of hightech industries.**

**Answer:**

High technology, or simply high-tech, is the latest generation of manufacturing activities. It is best understood as the application of intensive research and development (R and D) efforts leading to the manufacture of products of an advanced scientific and engineering character. Professional (white collar) workers make up a large share of the total workforce. These highly skilled specialists greatly outnumber the actual production (blue collar) workers.

Robotics on the assembly line, computer-aided design (CAD) and manufacturing, electronic controls of smelting and refining processes, and the constant development of new chemical and pharmaceutical

products are notable examples of a high-tech industry. Neatly spaced, low, modern, dispersed, office-plant-lab buildings rather than massive assembly structures, factories and storage areas mark the high-tech industrial landscape. Planned business parks for high-tech start-ups have become part of regional and local development schemes.

High-tech industries which are regionally concentrated, self-sustained and highly specialized are called technopolies. The Silicon Valley near San Francisco and Silicon Forest near Seattle are examples of technopolies. Bangalore is known as Silicon Valley of India.

### **Question 7.**

**Distinguish between cottage industrie and small scale industries.**

**Answer:**

Cottage Industry	Small Scale Industries
(i) It is the smallest manufacturing unit. Finished products may be for consumption in the same household or, for sale in local (village) markets, or, for barter.	(i) Small scale manufacturing is distinguished from household industries by its production techniques and place of manufacture (a workshop outside the home/cottage of the producer).
(ii) The artisans use local raw materials and simple tools to	(ii) This type of manufacturing uses local raw material, simple power-

produce everyday goods in their homes with the help of their family members or part time labour.	driven machines and semi-skilled labour.
(iii) Some common everyday products produced in this sector of manufacturing include foodstuffs, fabrics, mats, containers tools, furniture, shoes, and figurines from wood lot and forest, shoes, thongs and other articles from leather; pottery and bricks from clays and stones. Goldsmiths make jewellery of gold, silver and bronze. Some artefacts and crafts are made out of bamboo, wood obtained locally from the forests.	(iii) It provides employment and raises local purchasing power. Therefore, countries like India, China, Indonesia and Brazil, etc. have developed labour-intensive small scale manufacturing in order to provide employment to their population.

**Question 8.****Distinguish between small scale & large scale manufacturing industry.****Answer:**

Small Scale Industries	Large Scale Industries
(i) Its manufacturing place (workshop) is outside the home/cottage of the producer.	(i) Large scale industry is totally market oriented industry, involving large scale production and technological advanced methods of production of goods in large factory set up.
(ii) It uses local raw material, simple power-driven machines and skilled labour.	(ii) It involves a large market, various raw materials, enormous energy, specialized workers, advanced technology, assembly-
(iii) Countries like India, China, Indonesia and Brazil, etc. have developed labour-intensive	(iii) This kind of manufacturing developed in the last 200 years, in the United Kingdom, north-eastern U.S.A.

small scale manufacturing in order to provide employment to their population.	and Europe.
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### Question 9.

**Differentiate between Basic Industry and Consumer Goods industry**

**Answer:**

Basic Industry	Consumer Goods Industry
<p>(i) Industries whose products are used to produce other goods by using them as raw materials are called basic industries.</p> <p>(ii) Iron and steel industry produces steel which is used by other industries as a raw material to produce machines.</p>	<p>(i) Industries which produce goods for direct consumption are known as consumer goods industries.</p> <p>(ii) Tea, bread, soap and television which are used by consumers.</p>

**Question 10.****Differentiate between Private Sector Industry and Public Sector Industry****Answer:**

Basic Industry	Consumer Goods Industry
(i) Industries owned and managed by an individual or a corporate body belongs to private sector. Individuals invest their own capital and they manage these industries themselves.	(i) When the ownership and management of an industry is in the hand of the state, it is called public sector industry.
(ii) Reliance Industries Limited	(ii) Bharat Heavy Electronics Limited

**Question 11.****Differentiate between white collar worker and blue collar worker.****Answer:**

White Collar Worker	Blue Collar Worker
(i) Those group of workers which is highly qualified and skilled and does mental work is called white collar	(i) Those group of workers which is not so qualified and skilled and does physical work



worker.	is called blue collar worker.
(ii) These workers enjoy high standard of living and better social status.	(ii) They get relatively lesser wages.

## Multiple Choice Questions

### Question 1.(i)

**Which one of the following statements is wrong?**

- (a) Cheap water transport has facilitated the jute mill industry along the Hugli.
- (b) Sugar, cotton textiles and vegetable oils are footloose industries.
- (c) The development of hydro-electricity and petroleum reduced, to a great extent, the importance of coal energy as a locational factor for industry.
- (d) Port towns in India have attracted industries.

**Answer:**

- (b) Sugar, cotton textiles and vegetable oils are footloose industries.

### Question 1.(ii)

**In which one of the following types of economy are the factors of production owned individually?**

- (a) Capitalist
- (b) Mixed
- (c) Socialist
- (d) None

**Answer:**

- (a) Capitalist

**Question 1.(iii)**

**Which one of the following types of industries produces raw materials for other industries?**

- (a) Cottage industries
- (b) Small-scale industries
- (c) Basic industries
- (d) Footloose industries

**Answer:**

- (c) Basic industries

**Question 1.(iv)**

**Which one of the following pairs is correctly matched?**

- (a) Automobile industry ... Los Angeles
- (b) Ship building industry... Lusaka
- (c) Air craft industry ... Florence
- (d) Iron and steel industry ... Pittsburgh

**Answer:**

- (d) Iron and steel industry ... Pittsburgh