5 Industries

Lesson at a Glance

- **Secondary activities** are those that involve processing of natural resources. Manufacturing is a secondary activity. **Manufacturing** refers to changing raw materials to a **product**, *i.e.* to a usable form, which can be more valuable to people.
- **Industry** refers to an economic activity that is concerned with production of goods, extraction of minerals or provision of services.
- We classify industries on the basis of raw materials, size and ownership.
- On basis of raw materials, industries are **agro-based**, **mineral-based**, **marine-based** or **forest-based**.
- The raw material of **agro-based industries** consists of plant and animal based products. Some examples are food processing, cotton textile industry and leather industry.
- The raw material used in **mineral-based industries** consists of mineral ores. The products of mineral-based industries are used in other industries as well. We can understand it better with an example: heavy machinery made of iron, which is used in most industries, actually comes after processing of iron ore in a mineral-based industry.
- **Marine-based industries** use products obtained from the sea and oceans as raw materials. Sea food industry is one such industry.
- A **forest-based industry** uses forest produce as raw material. Examples are paper industry and furniture.
- Based on size, industries can be classified into **small-scale** and **large-scale industries.** Cottage or household industries are examples of small-scale industries. The products here are manufactured by hands, with less use of capital and technology. Investment of capital and use of technology is huge in large -scale industries.
- On the basis of ownership, industries are classified into **private sector**, **state owned** (**public sector**), **joint sector** and **cooperative**

sector. Private sector industries are owned by individuals or a group of individuals. Public sector industries are owned by the government. Joint sector industries are owned and operated by the state and individuals. Maruti Udyog is an example of such an industry. Cooperative sector industries are owned and operated by the producers or suppliers of raw materials, workers or both. AMUL is one such industry.

- The location of industries is affected by the availability of raw material, land, water, labour, power, capital, transport and market.
- An industrial system, like farming process, consists of inputs, processes and outputs. Raw materials, labour and cost of land, transport, power and other infrastructure constitute the inputs. Processes include all activities involved in converting the raw material to finished products. The finish products along with the income earned by its trade are outputs.
- Major industrial regions of the world are eastern North America, western and central Europe, eastern Europe and eastern Asia. Such areas are usually located in temperate areas, near sea ports and coal fields.
- The **iron and steel industry** is a mineral-based industry whose products are used as raw material for other industries.
- Inputs in iron and steel industry: iron ore, coal, limestone, human labour, capital, and infrastructure. Processes involved: smelting, refining. Outputs obtained: steel.
- **Steel** is called the backbone of modern industry. Most common objects are made of steel. In India most important steel producing centres are spread over the states of West Bengal, Jharkhand, Orissa and Chhattisgarh.
- **Tata Iron and Steel Company Limited (TISCO)** was the only one iron and steel plant in India till independence. It is located in Jamshedpur. Several iron and steel industries were set up after independence. This led to rapid industrial development in India.
- **Pittsburgh** is an important steel city of USA.
- The **cotton textile industry** is one of the oldest industries in the world. India is renowned for producing excellent quality cotton. The first mechanised textile mill in India was established in Mumbai in 1854. Rapid expansion of the industry took place owing to the warm, moist climate, the presence of a port nearby, and availability of raw material and labour at cheap cost.
- Ahmedabad is the second largest textile city in India after Mumbai. It is referred to as the "Manchester of India". In recent years textile

mills here have started getting closed down due to several problems.

- Osaka is the "Manchester of Japan".
- The **Information Technology (IT)** sector deals in the storage, processing and distribution of information. The major hubs of IT industry are Silicon Valley in USA and Bangalore in India.

TEXTBOOK QUESTIONS SOLVED

Q. 1. *Answer the following questions.*

(*i*) *What is meant by the term 'industry'?*

(*ii*) *Which are the main factors which influence the location of an industry?*

(*iii*) *Which industry is often referred to as the backbone of modern industry and why?*

(*iv*) *Why cotton textile industry rapidly expanded in Mumbai?*

(*v*) *What are the similarities between information technology industry in Bangalore and California?*

Ans. (*i*) Industry refers to an economic activity that is concerned with production of goods, extraction of minerals or provision of services.

(*ii*) The location of industries is affected by the availability of raw material, land, water, labour, power, capital, transport and market.

(*iii*) The iron and steel industry is referred to as the backbone of modern industry. This is so because it is a "feeder" industry whose products are used as raw materials for other industries.

(*iv*) Cotton textile industry expanded rapidly in Mumbai initially because of the presence of a lot of favourable conditions. Warm and moist climate, a port situated nearby to import machinery, easy availability of raw material and skilled labour were factors behind this.

(*v*) Some of the points of similarity between information technology industry in Bangalore and Silicon Valley are:

(*a*) *Educational and technological institutions:* Bangalore has the largest number of educational institutions and IT colleges in India and Silicon Valley is also situated close to some reputed scientific and technological centres of the world.

(*b*) *Environment:* Both of Bangalore and Silicon Valley have low pollution levels and have a clean environment.

Q. 2. *Tick the correct answer.*

(*i*) *Silicon Valley is located in*

(*a*) *Bangalore* (*b*) *California*

(*c*) *Ahmedabad*

(*ii*) *Which one of the following industries is known as sunrise industry?*

(*a*) *Iron and steel industry* (*b*) *Cotton textile*

(*c*) *Information Technology*

(*iii*) *Which one of the following is a natural fibre?*

(*a*) *nylon* (*b*) *jute*

(*c*) *acrylic*

Ans. (*i*) (*b*), (*ii*) (*c*), (*iii*) (*b*).

Q. 3. *Distinguish between the followings.*

(*i*) *Agro-based and mineral-based industry*

(*ii*) *Public sector and joint sector industry*

Ans. (*i*)

Agro-based Industry	Mineral-based Industry
1. Agro-based industries use plant and animal based products as their raw material.	1. Mineral-based industries use mineral ores as their raw material.
2. Examples of raw materials used: animal skin, crops.	2. Examples of raw materials used: iron ore, limestone.
3. Examples of industries: leather industry, food processing.	3. Examples of industries: iron and steel industry.

(*ii*)

Public Sector Industry	Joint Sector Industry
1. Public sector industries are owned and run by the government.	1. Joint sector industries are owned and operated by the state as well as individuals.
2. Examples: Hindustan Aeronautics Limited.	2. Examples: Maruti Udyog.

Q. 4. *Give two examples of each the following.*

(*i*) *Raw materials*
(*ii*) *End products*
(*iii*) *Tertiary activities*
(*iv*) *Agro-based industries*
(*v*) *Cottage industries*
(*vi*) *Co-operatives*

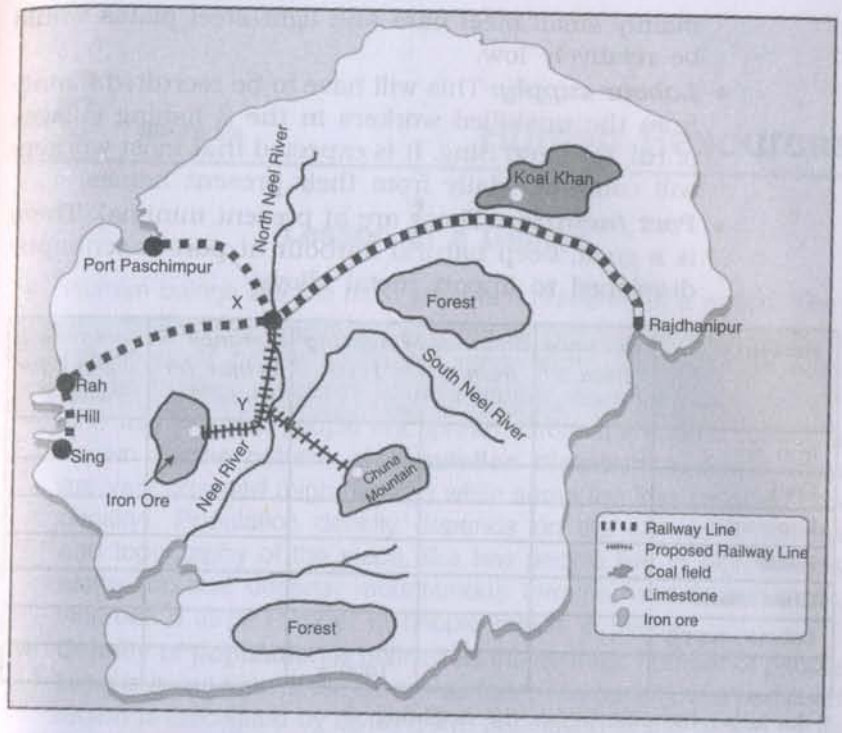
Ans. (*i*) Ores, plants. (*ii*) Clothes that we wear, a car.
(*iii*) Trade, banking. (*iv*) Food processing, leather industry.
(*v*) Basket weaving, pottery. (*vi*) AMUL, Sudha Dairy.

Q. 5. *Activity*

How to identify a location for establishing an industry—

Divide your class into groups. Each group is a Board of Directors faced with the problem of choosing a suitable site for an iron and steel plant of Developen Dweep. A team of technical experts have submitted a report with notes and a map. The team considered access to iron ore, coal, water and limestone, as well as the main market, sources of labour and port facilities. The team has suggested two sites, X and Y. The Board of Directors have to take the final decision of where to locate the steel plant.

- *Read the report submitted by the team.*
- *Study the map to find out the distances of the resources from each site.*
- *Give each resource a 'weight' from 1 to 10, according to its importance. The greater the 'pull' of the factor on the industry the higher the weight from 1 to 10.*
- *Complete the table below.*
- *The site with the lowest total should be the most satisfactory site.*
- *Remember each group of directors can decide differently.*



Report

Factors/Resources affecting the location of a proposed Iron and Steel Plant on Developen Dweep.

- ***Iron ore:*** This is a very large deposit of low grade iron ore. Long distance transportation of the ore would be uneconomic.
- ***Coal:*** The only coalfield contains rich deposits of high grade coal. Transportation of the coal is by railway, which is relatively cheap.
- ***Limestone:*** This is widely available over the island, but the purest deposits are in the Chuna Mountains.
- ***Water:*** Both the tributaries of River Neel carry sufficient water to supply a large iron and steel plant in all seasons. The sea water because of its high salt content is unsuitable.
- ***Market:*** It is expected that the chief market for the plant's products will be the engineering works of Rajdhanipur. Transport costs for the products—

mainly small steel bars and light steel plates would be relatively low.

- ***Labour supply:*** This will have to be recruited mainly from the unskilled workers in the 3 fishing villages of Hil, Rah and Sing. It is expected that most workers will commute daily from their present homes.
- ***Port facilities:*** These are at present minimal. There is a good, deep natural harbour at port Paschimpur developed to import metal alloys.

Resource	*Distance from X*	*Distance from Y*	*Weighting* 1–10*	*Distance X weight for site X*	*Distance X weight for site Y*
Iron ore					
Coal					
Limestone					
Water					
Chief market					
Labour supply					
			Total =		

* the larger the pull, higher the weighting

Ans. This should be done as a class activity.

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