Chapter 6 – Manufacturing Industries

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Question 1:

Multiple choice questions

(i) Which one of the following industries uses limestone as a raw material.

(a) Aluminium

(b) Cement

(c) Sugar

(d) Jute

(ii) Which one of the following agencies markets steel for the public sector plants?

(a) HAIL

(b) SAIL

(c) TATA Steel

(d) MNCC

(iii) Which one of the following industries uses bauxite as a raw material?

(a) Aluminium

(b) Cement

(c) Jute

(d) Steel

(iv) Which one of the following industries manufactures telephones, computer, etc?

(a) Steel

(b) Electronic

(c) Aluminium

(d) Information Technology

Answer:

(i) (b) Cement

(ii) (b) SAIL

(iii) (a) Aluminium

(iv) (b) Electronic

Question 2:

Answer the following briefly in not more than 30 words.

(i) What is manufacturing?

(ii) Name any three physical factors for the location of the industry.

(iii) Name any three human factors for the location of an industry.

(iv) What are basic industries? Give an example.

(v) Name the important raw materials used in the manufacturing of cement?

Answer:

(i) Manufacturing is the process in which goods are produced after processing the various raw materials. The raw materials themselves may be manufactured products.

(ii) Physical factors essential in deciding the location of an industry are − availability of raw materials, availability of capital and the proximity to the market.

(iii) Human factors essential in deciding the location of an industry are − availability of cheap labour, availability of services such as consultants and financial advice, and resources for maintaining labour.

(iv) Basic industries are those which supply their raw materials to industries which manufacture other goods. An example is the iron and steel industry which supplies steel to the automobile industry.

(v) The important raw materials used in the manufacturing of cement are: limestone, silica, alumina and gypsum. Apart from these, coal, electric power and rail transportation are also needed.

Question 3:

Write the answers of the following questions in 120 words.

(i) How are integrated steel plants different from mini steel plants? What problems does the industry face? What recent developments have led to a rise in the production capacity?

(ii) How do industries pollute the environment?

(iii) Discuss the steps to be taken to minimise environmental degradation by industry?

Answer:

(i) Integrated steel plants are different from mini steel plants in many aspects. An integrated steel plant is large and handles everything in one complex—

from integrating raw materials to steel making, rolling and shaping. On the other hand, a mini steel plant is smaller, has electric furnaces, uses steel scrap and sponge iron, and has re-rollers that use steel ingots as well. It produces mild and alloy steel of given specifications.
The problems faced by this industry are: (a) high production costs and limited availability of coking coal; (b) lower productivity of labour; (c) irregular supply of energy; and (d) poor infrastructure.
Recent developments that have led to a rise in the production capacity of this industry are liberalisation and Foreign Direct Investment, with help from private entrepreneurs.
(ii) Industrial pollution of the environment is of four types: air, water, land and noise. Air pollution is caused by smoke released by chemical and paper factories, brick kilns, refineries and smelting plants, and burning of fossil fuels in factories ignoring pollution norms. Water pollution is caused by the discharging of organic and inorganic industrial wastes and affluents into rivers. This form of pollution is caused by paper, pulp, chemical, textile, dyeing, petroleum refineries, tanneries and electroplating industries. The major solid wastes released into rivers in India are fly ash, phospo-gypsum, and iron and steel slags. Thermal pollution of water is another form of water pollution, caused by the emission of hot water from factories and thermal plants into rivers and ponds. Dumping of solid wastes renders the soil infertile and useless too. Lastly, noise pollution results from industrial and construction activities, machinery, generators, and saws, pneumatic and electric drills.

(iii) The steps to be taken to minimise environmental degradation by industry are as follows:

(a) To control water pollution, industrial effluents need to be treated on all three levels (primary, secondary and tertiary); the use of water for processing should be minimised via reuse and recycling; rainwater can be harvested to meet water requirements, and ground water usage should be regulated by law.

(b) For the minimisation of air pollution, smoke stacks should be fitted to factories with electrostatic precipitators, fabric filters, scrubbers and inertial separators. Also, smoke can be reduced by using oil or gas instead of coal.

(c) Noise pollution can be controlled by fitting generators with silencers, redesigning machinery to reduce noise, and using earplugs and earphones besides other noise absorbing material.