

CHAPTER 2.6

Manufacturing Industries

ONE MARK QUESTIONS

1. Why has the 'National Manufacturing Competitiveness Council' been set-up? [CBSE 2015]

Ans :

To improve the productivity, economists predict what manufacturing can achieve its target over the next decades.

2. Why is the 'least cost' known as decision making factor for ideal location of an industry?

Ans : [CBSE 2015]

Manufacturing activity tends to locate at the most appropriate place where all the factors of industrial locations are either available or can be arranged at a lower cost.

3. What is manufacturing? [CBSE 2012]

Ans :

Production of goods in large quantities after processing from raw material to more valuable products is called as manufacturing.

4. What is agglomeration economies? [Foreign 2010]

Ans :

Many industries that tend to come together to make use of the advantages offered by the urban centers like markets and services are known as agglomeration economies.

5. Name the river-basin where jute industries are concentrated in India. [Foreign 2010]

Ans :

The river-basin where jute industries are concentrated in India is Hugh river-basin.

6. Name the region which has maximum concentration of iron and steel industries. [Foreign 2010]

Ans :

Chota Nagpur plateau region in Jharkhand has maximum concentration of iron and steel industries.

- b. Today large industrial houses are as common place as the industrial units of many MNCs are exerting pressure on freshwater sources.
- c. Industrialisation followed by the urbanisation multiplying the problems of water scarcity and exerting pressure on water sources causing their depletion.

8. Why do we have maximum concentration of iron and steel industry in Chota Nagpur Plateau region? Give any three regions. [CBSE 2016]

or

Why has the Chota Nagpur Region maximum concentration of iron and steel industries? Explain any three.

Ans : [CBSE 2015,2014,2011]

Factors responsible for concentration of iron and steel industries in Chhota Nagpur Plateau:

- Low cost of iron-ore
- High grade raw material in proximity.
- Cheap labour.
- Vast growth potential in the home market.
- Good transport connectivity.
- Availability of water resources.

Ans :

9. India is an important iron and steel producing country in the world. Yet we are not able to perform to our full potential." Suggest and explain any three measures to get full potential. [CBSE 2016]

Ans :

India is an important iron and steel producing country in the world, yet we are not able to perform to our full potential largely due to:

- High costs and limited availability of cooking coal.
- Lower productivity of labour.
- Irregular supply of energy and
- Poor infrastructure.

10. "Agriculture gives boost to the industrial sector."

THREE MARKS QUESTIONS

7. How has the ever increasing number of industries in India made worse position by exerting pressure on existing fresh water resources? Explain.

Ans : [CBSE 2018]

- a. Industries apart from being heavy users of water also require power to run them.



Support the statement with arguments.

Ans : [CBSE 2015]

Agriculture gives boost to the industrial sector:

- Agriculture provides raw material to industries.
- Agriculture provides market for industrial products.
- Agriculture helps boost new industrial products.
- The industries such as cotton, jute, silk, woollen textiles, sugar and edible oil, etc., are based on agricultural raw materials.

11. Describe any three major problems faced by the weaving and processing sectors in cotton textile industry. [CBSE 2015]

or

Describe any three major problems faced by cotton textile industry in India.

Ans : [CBSE 2014, 2010]

Problems of cotton textile industry are:

- Although production has increased, it is still not enough and imports are needed.
- Erratic power supply and outdated machinery.
- Low output of labour.
- Stiff competition from synthetic fabrics.

12. Why is there a tendency for the sugar mills to concentrate in Southern states of India in recent years ? Give three reasons. [CBSE 2014,2011]

Ans :

Shifting of sugar industries to Southern states is because:

- Sugarcane that grows there has a higher sucrose content.
- Favourable climate provides longer crushing period and growing season.
- Cooperatives are successful in these states.
- Modern mills have more crushing capacity.

13. Analyse any three major challenges faced by the sugar industry in India. [CBSE 2014]

Ans :

Major challenges of sugar industry are:

- Seasonal nature of the industry.
- Old and inefficient methods of production.
- Transport delay in reaching sugar factories and the need to maximise the use of bagasse.

14. Define the term manufacturing. Classify industries on the basis of source of raw materials used.

Ans : [CBSE 2013, 2012]

Definition: "Production of goods in large quantities after processing from raw materials to more valuable products is called manufacturing."

Classification:

- Agro-based: Cotton, woollen, jute, silk textile, etc.
- Mineral-based: Iron, steel, cement etc.

15. Explain any three factors which were responsible for the concentration of cotton textile industry in Maharashtra and Gujarat in early years.

Ans : [CBSE 2012]

- Availability of raw cotton.
- Ready markets are available.

- Well-developed means of transportation.
- Abundant skilled and unskilled labour at cheap rate.
- Moist climate which is suitable for the cotton industry.

16. Classify industries on the basis of capital investment. How are they different from one another ? Explain with examples. [CBSE 2016]

Ans :

- (i) Classification of the industries on the basis of capital investment:

- Small Scale Industry
- Large Scale Industry

- (ii) Difference: If the investment is more than one crore on any industry, it is considered as a large scale industry. For example, Iron and Steel Industry/ Cement Industry (any other relevant example). While the investment is less than one crore on an industry, it is considered as a small scale industry e.g., Plastic industry, toy industry.

17. Classify industries on the basis of their main role. How are they different from each other? [CBSE 2016]

Ans :

According to their main role:

- Basic or key industries which supply their products or raw materials to manufacture other goods e.g., Iron and steel and copper smelting, aluminium smelting.
- Consumer industries that produce goods for direct use by consumers-sugar, toothpaste, paper, sewing machines, fans etc,

18. Examine the impact of liberalisation on automobile industry of India. [CBSE 2012]

Ans :

Impact of liberalisation on automobile industry are:

- Multi-utility vehicles have been introduced.
- The coming of new and contemporary models.
- Healthy growth of the market.
- FDI in new technology.
- Aligned the industry with global development.
- Industry has experienced a quantum jump.

19. Mention the various measures taken by the government to boost the production of jute goods.

Ans : [CBSE 2012]

Various steps taken by the government to boost the production of Jute are:

- In 2005, National Jute Policy was formulated with the objective of increasing productivity.
- Improvement of quality.
- Ensuring good prices to the jute farmers and enhancing the yield per hectare.

20. Explain the factors responsible for localisation of jute textile mills mainly on the banks of the river Hugh.

Ans : [CBSE 2012]

Factors responsible for their location in the Hugli basin are as follows:

- Proximity of the jute producing areas,
- Inexpensive water transport, supported by a good network of railways, roadways and waterways to facilitate movement of raw material to the mills,

- c. Abundant water for processing raw jute,
- d. Cheap labour from West Bengal and adjoining states of Bihar, Odisha and Uttar Pradesh.
- e. Kolkata as a large urban centre provides banking, insurance and port facilities for export of jute goods.

21. "Many of our spinners export cotton yarn while apparel manufacturers have to import fabric." Explain this statement with appropriate reasons.

Ans : [CBSE 2014]

- a. The weaving, knitting and processing units cannot use much of the high quality yarn that is produced in the country. Therefore, many of our spinners export cotton yarn while apparel/garment manufacturers have to import fabric.
- b. If weaving sector is improved, then yarn can be used in the country and garments can be exported to earn foreign exchange for the country.

22. "Production and consumption of steel is often regarded as the index of a country's development". Examine the statement. [CBSE 2014]

Ans :

- a. Steel production is the backbone of any country's economy since it is the basic unit for the development of the nation.
- b. Almost every industry depends on iron and steel for its manufacturing and production.
- c. In today's era of globalisation, consumption of goods is increasing. Thus, it can be concluded that growth in production of steel is regarded as the index of country's development.

23. "Environmental degradation has been seen everywhere." Explain any three values that can help to prevent environment degradation. [CBSE 2014]

Ans :

Steps to minimise environmental degradation:

- a. Optimum utilisation of equipments, adopting latest techniques.
- b. Upgrading existing equipments.
- c. Minimising waste generation by maximising ash utilization.
- d. Providing green belts for nurturing ecological balance.
- e. Reducing environmental pollution through ash pond management, water recycling system and liquid waste management.

24. Describe any five factors responsible for the concentration of iron and steel industry in and around Chota Nagpur Plateau region. [CBSE 2012]

Ans :

Factors responsible for concentration of iron and steel industries in Chhota Nagpur Plateau:

- a. Low cost of iron-ore
- b. High grade raw material in proximity,
- c. Cheap labour.
- d. Vast growth potential in the home market.
- e. Good transport connectivity.
- f. Availability of water resources.

25. Why was the cotton textile industry concentrated in

the cotton growing belt in the early years? Explain.

Ans : [CBSE 2015]

Cotton textile industry was concentrated in the cotton growing belt in the early years because:

- a. Availability of raw cotton e.g. belt of Maharashtra and Gujarat.
- b. Nearness to market.
- c. Transport
- d. Port facilities
- e. Cheap labour
- f. Moist climate.

26. What challenges are faced by the jute textile industries in India? Mention the main objectives of National Jute Policy, 2005. [CBSE 2012]

Ans :

Problems faced by jute mills:

- a. Stiff competition in international market from countries like Bangladesh, Brazil, Philippines, Egypt, etc.
- b. Stiff competition from synthetic fibre
- c. Products need to be diversified.

In 2005, National Jute Policy was formulated with the objective of increasing productivity, improving quality, ensuring good prices and enhancing the yield per hectare.

27. "The iron and steel industry is the basic as well as heavy industry." Support the statement with three points. [CBSE 2012]

or

Why is iron and steel industry called a basic industry? Explain. [CBSE 2012]

Ans :

Iron and steel industry is the basic industry as:

- a. All the other industries depend on it for their machinery.
- b. Steel is needed to manufacture a variety of engineering goods.
- c. It provides variety of consumer goods.
- d. Construction material, defence, medical, telephonic, scientific equipments, are the gift of iron and steel industry.

28. What is the importance of the Information Technology sector for the Indian economy? Explain.

Ans : [CBSE 2012]

The importance of IT sector is as follows:

- a. It has provided employment to over one million people.
- b. This industry is said to be a major foreign exchange earner.
- c. It has helped in the growth of the service sector.
- d. It provides employment to innumerable men and women.

29. What is the meaning of manufacturing industry? Why is it considered the backbone of economic development? Give two reasons. [CBSE 2011]

Ans :

Production of goods in large quantities after processing from raw materials to more valuable products is called manufacturing.

It is considered as backbone of development because:

- a. It not only helps in modernising agriculture but also forms the backbone of our economy.
- b. Industrial development is a precondition for eradication of unemployment and poverty from our country.

30. Why is cotton textile industry the largest industry in India today? Give any three reasons.

Ans : [CBSE 2011]

- a. Cotton textile industry contributes 14 percent of the total industrial production.
 - b. It provides employment to 35 million persons directly, the second largest after agriculture.
 - c. It earns foreign exchange of about 24.6 percent (4 percent of GDP).
31. What are the three main reasons for shifting of the sugar mills to Maharashtra in recent years.

Ans : [CBSE 2011]

There are three main reasons which are as follows:

- a. The cane produced has a higher sucrose content.
 - b. The cooler climate which ensures a longer crushing season.
 - c. The cooperatives are more successful in this state.
32. Explain any three factors responsible for the location of cotton textile industry in Mumbai and Ahmedabad.

Ans : [CBSE 2011]

- a. Availability of raw cotton, market, transport including accessible port facilities,
 - b. cheap labour and;
 - c. moist climate have caused the concentration of cotton textile industries in Mumbai and Ahmedabad region.
33. Distinguish between an integrated steel plant and a mini steel plants stating three points of distinction.

Ans : [CBSE 2011]

- a. An integrated steel plant is larger than a mini steel plant.
 - b. Mini steel plant use steel scrap and sponge iron while Integrated steel plant use basic raw materials i.e. iron ore for making steel.
 - c. Mini steel plant produces mild and alloy steel while integrated steel plant produces only steel.
34. Mention any two factors that have contributed to a healthy growth of the automobile industry in India. Name two centres where this industry is located.

Ans : [CBSE 2011]

- a. The introduction of new and contemporary models stimulated the demand for vehicles in the market.
- b. Foreign Direct Investment (FDI) brought in new technology and aligned the industry, with global developments. The two centres 1 of automobile industry are Jamshedpur and Gurgaon.

35. Examine what are the causes of industrial pollution of freshwater resources. [CBSE 2011]

Ans :

Freshwater sources are polluted by organic and inorganic wastes and effluents discharged by industries into rivers. The main culprits are paper and pulp, chemical, textile, petroleum refineries, tanneries industries etc.

36. Suggest any three measures to reduce the industrial pollution of freshwater resources. [CBSE 2011]

Ans :

- a. Minimising use of water for processing by reusing and recycling it in two or more successive stages.
- b. Harvesting of rainwater to meet water requirements.
- c. Treatment of hotwater and effluents before releasing them in rivers and ponds.

FIVE MARKS QUESTIONS

37. Suggest any three steps to minimize the environmental degradation caused by the industrial development in India. [CBSE 2016]

or

Explain any three steps to be taken to minimize environmental degradation by industries.

Ans : [CBSE 2014, 2013, 2012]

Three steps to minimize the environmental degradation caused by industrial development in India are:

Every litre of waste water discharged by our industry pollutes eight times the quantity of freshwater.

1. Minimizing use of water for processing by reusing and recycling it in two or more successive stages.
 2. Harvesting of rainwater to meet water requirement.
 3. Treating hot water and effluents before releasing them in rivers and ponds.
 4. Particulate matter in the air can be reduced by fitting smoke stacks to factories with electrostatic precipitators, fabric filters, scrubbers and inertial separators.
 5. Smoke can be reduced by using oil or gas instead of coal in factories.
 6. Machinery and equipments can be used and generators should be fitted with silencers.
 7. Almost all machineries can be redesigned
 8. to increase energy efficiency and reduce noise.
38. Why is the economic strength of a country measured by the development of manufacturing industries? Explain with examples. [CBSE 2018]

Ans :

The economic strength of a country is measured by the development of manufacturing industries. Manufacturing sector is considered the backbone of development in general and economic development in particular mainly because:

- a. Manufacturing industries not only help in modernising agriculture, which forms the backbone of our economy, but also reduce the heavy dependence of people on agricultural income by providing them jobs in secondary and tertiary sector.
- b. Industrial development is a precondition for eradication of unemployment and poverty from our country.
- c. It was also aimed at bringing down regional disparities by establishing industries in tribal and backwards areas.
- d. Export of manufactured goods expands trade and commerce, and brings in much needed foreign

exchange.

- e. Countries that transform their raw materials into a wide variety of furnished goods of higher value are prosperous.

39. Describe the importance of manufacturing. [CBSE 2016]

or

Describe the importance of manufacturing sector in countries like India.

Ans : [CBSE 2018]

The economic strength of a country lies in the development of manufacturing industries because:

- Manufacturing industries help in modernising agriculture which forms the backbone of our economy.
 - It reduces the heavy dependence of people on agriculture sector and creates jobs in secondary and tertiary sectors.
 - It is necessary for the removal of unemployment and poverty.
 - It brings down regional disparities.
 - Export of manufactured goods expands trade and commerce and enhances prosperity.
 - It brings much needed foreign exchange
40. What are software technology parks? State any two points of significance of information technology industry in India.

Ans : [CBSE 2011]

Software Technology Park: Software technology parks provide single window service and high data communication facility to software experts.

Significance of IT industry:

- A major impact of this industry has been on employment generation. Upto 31 March, 2005, the IT industry employed over one million persons.
 - It is encouraging to know that 30 percent of the people employed in this sector are women.
 - This industry has been a major foreign exchange earner in the last two or three years because of its fast growing Business Processes Outsourcing (BPO) sector.
 - The continuous growth in the hardware and software is the key to the success of IT industry in India.
41. "The economic strength of a country is measured by the development of manufacturing industries." Support the statement with arguments.

Ans : [CBSE 2016]

Role of manufacturing industries in the economic development:

- Manufacturing sector is considered as the backbone of development.
- All round development depends on industries,
- Industries help in modernising agriculture,
- Reduces the heavy dependence of people on agricultural income by providing them jobs.
- Industrial development is a precondition for eradication of unemployment and poverty from the country.
- It aims at bringing down regional disparities.
- Expansion of manufactured goods.
- Trade and commerce brings in much needed

foreign exchange.

9. India's prosperity lies in increasing and diversifying of its manufacturing industries as quickly as possible.

42. Evaluate the factors which are responsible for the location of jute industry in West Bengal. [CBSE 2016, 2014]

or

Describe any five factors responsible for the concentration of jute mills along the banks of the Hugh river. [CBSE 2015]

Ans :

Factors for the concentration of jute mills in West Bengal:

- Proximity of the jute producing areas.
- Inexpensive water transport.
- Abundant water.
- Cheap and skilled labour.
- Port facilities.
- Kolkata as a large urban centre provides banking and insurance facilities,

43. "Industrialisation and urbanisation go hand in hand". Validate the statement. [CBSE 2016]

or

"Industrialisation and urbanisation go hand in hand". Justify the statement by giving any three arguments.

Ans : [CBSE 2012]

After an industrial activity starts, the urbanisation follows.

- Sometimes industries are located in or near the cities.
- Cities provide markets for manufactured goods.
- Cities provide various services like banking and insurance etc.

44. Classify industries on the basis of source of raw material. How are they different from each other?

Ans : [CBSE 2016]

On the basis of sources of raw material industries are classified as:

- Agro Based Industries.
- Mineral Based Industries.

These industries are different from each other on following basis:

- Agro Based Industries:
 - Draws their raw materials from agricultural products.
 - e.g.: Textiles-Cotton, jute, silk and woolen, Rubber, sugar, coffee, tea and edible oil etc.
- Mineral Based Industries:
 - Draws their raw materials from minerals.
 - e.g., Iron and steel, cement, machine tools, petrochemicals etc.

45. "The textile industry is the only industry in the country which is self-reliant and complete in the value chain." Justify the statement. [CBSE 2016]

or

"Textile industry occupies a unique position in Indian economy" Support the statement with appropriate arguments. [CBSE 2015]

Ans :

The textile industry occupies a unique position in Indian economy, because it contributes:

- Significantly to industrial production (14 percent).
- It generates employment (35 million persons directly).
- Earns foreign exchange (about 24.6 percent).
- It contributes to a larger amount towards GDP (4 percent).

Only industry in the country which is self-reliant and complete in the value chain i.e., from raw material to the highest value added products.

46. What is the manufacturing sector? Why is it considered the backbone of development? Interpret the reason.

Ans : [CBSE 2015]

Definition of Manufacturing Sector: Production of goods in large quantities after processing from raw materials to more valuable products is called manufacturing.

It is considered as backbone of development because:

- It not only helps in modernising agriculture but also forms the backbone of our economy.
 - Industrial development is a precondition for eradication of unemployment and poverty from our country.
 - Export of manufactured goods expands trade and commerce.
 - Countries that transform their raw materials into a wide variety of finished goods of higher value are prosperous.
47. Explain any five factors affecting the location of a industry. [CBSE 2015]

Ans :

The factors affecting the location of an industry:

- Availability of raw material.
 - Availability of cheap labour.
 - Availability of capital and bank facilities,
 - Availability of power and other infrastructure.
 - Proximity to markets.
 - Availability of adequate and swift means of transport.
48. How does industry pollute the environment? Explain with three examples. [CBSE 2012]

Ans :

Industries are responsible for three types of pollution i.e.

- Air pollution is caused by the presence of high proportion of undesirable gases, such as sulphur dioxide and carbon monoxide. Smoke is emitted by chemical and paper factories, brick kilns, refineries and smelting plants, and burning of fossil fuels in big and small factories.
- Water pollution is caused by organic and inorganic industrial wastes and effluents discharged into rivers. The main culprits in this regard are paper, pulp, chemical, textile and dyeing, petroleum refineries and electroplating industries that let out dyes, detergents, acids, salts and heavy metals like lead and mercury, pesticides, fertilisers, synthetic chemicals with carbon, plastics and rubber, etc., into the water bodies.
- Noise pollution is due to industrial and construction

activities. Machinery, factory equipment, generators, saws and pneumatic and electric drills cause hearing problems and irritation.

49. What is manufacturing sector? Describe four types of manufacturing sector on the basis of ownership.

Ans : [CBSE 2015]

Production of goods in large quantities after processing from raw materials to more valuable products is called manufacturing.

Four types of manufacturing sector on the basis of ownership are:

- Public sector owned by Govt, agencies. For example, BHEL, SAIL, etc,
 - Private sector owned by individuals or a group of individuals. For example, TISCO, Bajaj Auto Ltd, Dabur Industries, etc.
 - Joint sector jointly owned by the state and individuals. For example, Oil India Ltd, etc.
 - Cooperative sector is owned by and operated by the producers or suppliers of raw materials, workers or both. For example Amul, Mother Dairy, OMFED, sugar industry and coir industry, etc.
50. Explain the pro-active approach adopted by the National Thermal Power Corporation (NTPC) for preserving the natural environment and resources.

Ans : [CBSE 2015]

The pro-active approach adopted by the National Thermal Power Corporation (NTPC) for preserving the natural environment:

- Optimum utilisation of equipment, adopting latest techniques and upgrading existing equipment.
 - Minimising waste generation by maximising ash utilisation.
 - Green belts for nurturing ecological balance and addressing the question of special purpose vehicles for afforestation.
 - Reducing environmental pollution through ash pond management, ash water recycling system and liquid waste management.
 - Ecological monitoring, reviews and online database management for all its power stations.
51. Describe the various physical and human factors responsible for the location of industries.

Ans : [CBSE 2014]

Physical Factors:

- Availability of raw materials : Ideal location should be near the sources of raw materials.
- Power resources: Power resources like coal and electricity must be available for the industry.
- Water and favourable climate.

Human Factors:

- Cheap and efficient labour,
- Capital and bank facilities,
- Good market,
- Transport facility.

52. "Agriculture and industry are complementary to each other." Explain with four examples. [CBSE 2014]

Ans :

- Agro industries in India have given a major boost to agriculture by raising its productivity.

- b. Industries depend on agriculture for their raw materials.
- c. Industries sell their products such as irrigation pumps, fertilisers, etc., to the farmers.
- d. Industries have made the production processes of agriculture very efficient.

53. Explain any five measures to control industrial pollution in India. [CBSE 2013]

Ans :

Five ways to reduce industrial pollution are listed below:

- a. Restructuring the manufacturing processes to reduce or eliminate pollutants, through a process called pollution prevention.
- b. Creating cooling ponds, which are man-made and are designed to cool the heated waters from industries by evaporation, condensation and radiation.
- c. Filtration of sewage in water treatment plants attached to industries.
- d. Instructing industries to be set-up far from residential areas.
- e. Backing the constitutional provisions by a number of laws-acts, rules, and notifications.

54. How do industries pollute water? Suggest any two measures to control water pollution. [CBSE 2013]

Ans :

Most important are the industrial effluents that are discharged into rivers. They are both organic and inorganic. Coal, dyes, pesticides, fertilisers, plastic are some common pollutants of water. Industrial wastes containing toxic metals pollute the water.

Suggestions to control water pollution:

- a. Water should be reused and recycled to maximise its usage.
- b. Rainwater should be harvested to meet water requirements.
- c. Hot water and effluents should be treated before releasing in river and ponds.
- d. Overdrawing of groundwater reserves by industry where there is a threat to ground water resources also need to be regulated legally.

55. Classify the industries on the basis of ownership and give one example of each category. [CBSE 2012]

Ans :

	Category	Examples
1.	Public Sector Industries	BHEL, SAIL, etc
2.	Private Sector Industries	Tata Steel, Bajaj Auto Ltd.
3.	Joint Sector Industries	Oil India Ltd.
4.	Cooperative Sector Industries	Sugar Industry in Maharashtra.

56. Distinguish between large scale and small scale industries. Give two examples each, [CBSE 2012]

Ans :

Large Scale Industries:

- a. Manufacture large quantities of finished goods.
- b. The quantity of raw material and capital

investment is large.

- c. Example: Iron and steel industry, cotton textile industry.

Small Scale Industries:

- a. Manufacture small goods.
- b. No huge quantity of raw material or capital is required.
- c. Example: Garment industry, soap making industry.

57. Why is India not able to perform to her full potential in iron and steel production? Explain any three reasons.

Ans :

India is an important producer of iron and steel but still it has failed to perform to its potential due to following reasons:

- a. Shortage of raw material
- b. Lower productivity of labour
- c. Shortage of power
- d. Poor infrastructure
- e. Lower investment in research and
- f. Development