# CHAPTER-VI

## MANUFACTURING INDUSTRIES

## 2 MARK QUESTIONS

**1. Define manufacturing.**

**ANSWER:**

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

**2. How do manufacturing industries help agriculture?**

**ANSWER:**

Manufacturing industries not only help in modernizing agriculture, which forms the backbone of our economy, but also reduce the heavy dependence of people on agriculture income by providing them jobs in secondary and tertiary sectors.

**3. Give one difference between public and private sectors.**

**ANSWER:**

**(i)** Public sector is owned and operated by government agencies, e.g., BHEL and SAIL, etc.
**(ii)** Private Sector – These industries are owned and operated by individuals or a group of individuals, e.g., TISCO, Bajaj Auto Ltd., Dabur Industrie

**4. Name the people who are provided employment opportunities by cotton textile industries.**

**ANSWER:**

Cotton farmers, cotton boll pluckers, workers engaged in ginning, spinning, weaving, dyeing, designing, packaging, tailoring and sewing. People who have industries of chemical and dyes, mill stores, packaging materials and engineering works.

**5. Give any two main factors responsible for the location of Jute industries in the Hughli Basin.**

**ANSWER:**

**(i)** Proximity of the jute producing areas.
**(ii)** Inexpensive water transport.
**(iii)** Supported by a good network of railways, roadways and waterways to facilitate movement of raw material to the mills.

**6.Give any two challenges faced by jute industry.**

**ANSWER:**

**(i)** Stiff competition in the international market from synthetic substitutes.
**(ii)** Competition from the other competitors like Bangladesh, Brazil, Philippines, Egypt and Thailand.

**7.What was the objective of National Jute Policy formulated in 2005?**

**ANSWER:**

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

## 8. What are the major challenges of sugar industries?

**ANSWER:**

Challenges include the seasonal nature of industry, old and inefficient methods of production, transport delay in reaching cane to factories and the need to maximise the use of baggage.

## 9. What are the weaknesses of iron and steel industries?

**ANSWER:**

**(i)** High costs and limited availability of coking coal.
**(ii)** Lower productivity of labour.
**(iii)** Irregular supply of energy.
**(iv)** Poor infrastructure.

## 10. Name the eight aluminium plants of India.

**ANSWER:**

**(i)** In Odisha (Nalco and Balco) (z)
**(ii)** West Bengal
**(iii)** Kerala
**(iv)** Uttar Pradesh
**(v)** Chhattisgarh
**(vi)** Maharashtra
**(vii)** Tamil Nadu

# 4 MARK QUESTIONS

**1. "Manufacturing sector is considered as the backbone of economic development of a country." Support the statement with examples.**

**ANSWER:**

Manufacturing sector:
**(i)** It helps in modernizing agriculture.
**(ii)** Helps in providing jobs in secondary and tertiary sectors.
**(iii)** Reduces unemployment and poverty.
**(iv)** It brings down the regional disparities by establishing industries in tribal and backward areas.
**(v)** Export of manufactured goods expands trade and commerce.
**(vi)** It brings in much needed foreign exchange.
**(vii)** Example- Cotton textile, Iron and Steel industry, etc.

**2. How can agriculture and industry go hand in hand?**

**ANSWER:**

The agro industries in India have given a major boost to agriculture by raising its production. It produces equipments like tractors, harvesters, threshers, etc.
On the other hand, industries are run on agricultural products like cotton, sugarcane, jute, edible oils, etc.

**3. Analyse the role of the manufacturing sector in the economic development of India.**

**ANSWER:**

The Role of manufacturing sector in the economic development of India:
**(i)** Manufacturing industries not only help in modernizing agriculture but also reduces the heavy dependence of people on agricultural income.
**(ii)** Eradication of Unemployment and poverty.
**(iii)** Export of manufactured goods expands trade and commerce and brings in much needed foreign exchange.

**(iv)** Countries that transform their raw material into a wide variety of furnished goods of higher value are prosperous.

### 4. Classify industries on the basis of their main role. How are they different from each other?

**ANSWER:**

**(i)** Basic or key industries: These industries supply their product or raw materials to manufacture other goods; e.g., iron and steel, copper smelting and aluminium smelting.
**(ii)** Consumer industries: These are the industries that produce goods for direct use by consumers; e.g., sugar, toothpaste, paper, sewing machines, fans, etc.

### 5. Which factors were responsible for the concentration of cotton textile industries in Maharashtra and Gujarat?

**ANSWER:**

- Raw cotton is easily available in and around that area because of the black cotton soil.
- Transport including accessible port facilities for export of cotton goods.
- Cheap and skilled labour is available around that area.
- Favourable moist climate contribute towards its localisation.

## 6. What problems are faced by the cotton textile industry?

**ANSWER:**

- Power supply remains erratic, thereby, affecting its production.
- Machinery needs to be upgraded in the weaving and processing sectors particularly.
- There is lower output of labour, since they are not skilled in their jobs.
- There is a stiff competition with the synthetic fibre industry.

## 7. What efforts were made by the government to stimulate demands of jute in the market?

**ANSWER:**

- In 2005, the National Jute Policy was formulated with the objective of increasing production.
- Efforts would be made to improve production and introduce some new products of jute-like fabric.
- Government can ensure good prices to the jute farmers, enhancing the yield per hectare.

## 8. What are the challenges faced by the sugar industry?

**ANSWER:**

Challenges:
**(i)** The industry is seasonal, so getting labour becomes difficult
**(ii)** India is still using old and inefficient methods of production, thereby, affecting its production.
**(iii)** There are transport delays in transporting sugarcane to factories, with the result that it loses its sugar content.
**(iv)** There is a need to maximise the use of bagasse to face the problem of power break up

## 9. Why does the Chota Nagpur plateau have the maximum concentration of iron and steel industries?

**ANSWER:**

It is because of the relative advantages this region has for the development of this industry.
**(i)** Low cost of iron ore is available, since it is mined in this region.
**(ii)** Its high grade raw material is available in close proximity.
**(iii)** Cheap, hard and skilled labour is easily available.
**(iv)** There is a vast growth potential in the home market.

# 7 MARK QUESTIONS

**1. Explain with examples the interdependence of agriculture and industries.**

**ANSWER:**

Interdependence of agriculture and industry:
**(i)** The agro-industries in India have given a major boost to agriculture by rising its productivity.
**(ii)** They depend on the latter for raw materials.
**(iii)** They sell their products such as irrigation pumps, fertilisers, insecticides, pesticides and PVC pipe, machines and tools etc. to the farmers.
**(iv)** Development and competitiveness of manufacturing industries has not only assisted agriculturists in increasing their productions, but also made the production processes very efficient.

**2. "Industrialization and urbanisation go hand in hand." Validate the statement.**

**ANSWER:**

After an industrial activity starts in a town, urbanisation follows. Industry provides employment to the people of the area. Population migrates from rural hinterlands to seek jobs, Housing and transport facilities are developed to accommodate these people. Other infrastructural developments take place leading to growth and development of the town into a city.

Sometimes, industries are located in or near the cities. Cities provide markets and services such as banking, insurance, transport, labour, consultants and financial advice, etc. to the industry. Thus, industrialisation and urbanisation go hand in hand.

## 3. Which major industries are responsible for water pollution?

**ANSWER:**

Water pollution is caused by organic and inorganic industrial wastes and effluents discharged into rivers.

The main culprits are paper, pulp, chemical, textile and dyeing, petroleum refineries, tanneries and electroplating industries that let out dyes, detergents, acids, salts and heavy metals like lead and mercury, pesticides, fertilizers, synthetic chemicals with carbon, plastics and rubber, etc., into the water bodies.

Fly ash, phospo-gypsum and iron and steel slags are the major solid wastes in India.

**Steps to minimize water pollution:**

**(i)** Minimising use of water for processing by reusing and recycling it in two or more successive stages. Harvesting of rainwater to meet water requirements.

**(ii)** Treating hot water and effluents before releasing them in rivers and ponds. Treatment of industrial effluents can be done in three phases
**(a)** Primary treatment by mechanical means. This involves screening, grinding, flocculation and sedimentation.
**(b)** Secondary treatment by biological process
**(c)** Tertiary treatment by biological, chemical and physical processes. This involves recycling of wastewater.
**(d)** Overdrawing of groundwater needs to be regulated legally.

## 4. What are 'agglomeration economies'?

**ANSWER:**

Cities provide markets and also provide services such as banking, insurance, transport, labour, consultants and financial advisors, etc., to the industries. Many industries tend to come together to make use of the advantages offered by the urban centres known as 'agglomeration economies. Gradually a large industrial agglomeration takes place. So, it is basically coordination of various industries' in a city for the development of manufacturing industries.

## 5. Classify industries on the basis of bulk and weight of raw materials and finished goods.

**ANSWER:**

Industries are classified on the basis of the weight of raw materials and finished goods in the following manner:

**(i)** Heavy Industries: These industries use heavy raw materials and also produce heavy goods, e.g., iron and steel, cement, ship-building, automobiles, etc.

**(ii)** Light Industries: These industries use light raw materials and produce light goods such as electrical industries, e.g., watches, electric bulbs, paint brushes, etc.

## 6. What are the major drawbacks for the cotton textile industry?

**ANSWER:**

 **Major drawbacks:**

- India has a large share in the world trade of cotton yarn but its trade in readymade garments is only 4 per cent of the world's total.
- India's spinning mills are competitive at the global level and capable of using all the fibres produced.

- But the weaving, knitting and processing units cannot use much of the high quality yarn that is produced in the country.
- There are some large and modern factories in these segments, but most of the productions are in fragmented small units, which cater to the local market.
- This mismatch is a major drawback for the industry. As a result, many Indian spinners export cotton yarn while garment manufacturers have to import fabric.

**7."Jute industry is concentrated in the Hugli basin". Validate the statement with three suitable reasons.**

**ANSWER:**

**Reasons for concentration of jute mills along the Hoogly River:**

- West Bengal is the storehouse of jute. It produces the highest quantity of jute.
- The industry requires a lot of water which is easily available from the Hoogly River.
- Cheap labour is easily available because of migrating labour from neighbouring states of Bihar and Odisha.
- Inexpensive water transport in the river Hoogly is available.
- A large urban sector in Kolkata provides banking, insurance and loan facilities.
- Kolkata is a good harbour which can provide facilities for the export of jute products in various parts of the world.

## 8. What is the contribution of manufacturing industry to the national economy?

**ANSWER:**

- Over the last two decades, the share of manufacturing sector has stagnated to 17 per cent of the GDP, which is required to be increased.
- The trend of growth rate in manufacturing over the last decade is around 7 per cent per annum, whereas the desired growth rate is 12 per cent.
- Since 2003, manufacturing is once again growing at the rate of 9 to 10 per cent per annum.
- With proper policies of the government and efforts by the industry to improve productivity, economists predict that manufacturing can achieve its target over the next decade.
- The National Manufacturing Competitiveness Council (NMCC) has been set up with this objective.

## 9. Classify industries on the basis of ownership.

**ANSWER:**

On the basis of ownership, industries can be classified as:

**(i) Public Sector:** These industries are owned and operated by the government agencies.

**(ii) Private Sector:** These industries are owned and operated by private entrepreneurs, e.g., TISCO, Bajaj Auto Ltd., Reliance Industries, Dabur Industries, etc.

**(iii) Joint Sector:** These industries are jointly run by the state and individual or a group of individuals. Oil India Ltd. (OIL) is jointly owned by public and private sectors.

**(iv) Cooperative Sector:** These industries are owned and operated by the producers or suppliers of raw materials, workers or both. They pool in the

resources and share the profits or losses proportionately such as the sugar industry in Maharashtra, the coir industry in Kerala.

## 10. Explain any two main challenges faced by the jute industry in India. Explain any three objectives of National Jute Policy.

**ANSWER:**

Challenges faced by the jute industry:
**(i)** Stiff competition in the international market from synthetic substitutes.
**(ii)** To stimulate the demand of the products need to be diversified.
**(iii)** Stiff competition from the other competitors like Bangladesh, Brazil etc.

**Objective of National Jute policy:**
**(i)** Increasing productivity
**(ii)** Improving quality.
**(iii)** Ensuring good prices to the jute farmers.
**(iv)** Enhancing the yield per hectare.

## 11. What is the current position of automobile industry in India?

**ANSWER:**

Automobile industry provides vehicle for quick transport of goods and passengers. Trucks, buses, cars, motorcycles, scooters, three-wheelers and multi-utility vehicles are manufactured in India at various centres. After the liberalisation, the coming in of new and contemporary models stimulated the demand for vehicles in the market, which led to the healthy growth of the industry including passenger cars, two and three-wheelers. The industry had experienced a quantum jump in less than 15 years. Foreign Direct Investment brought in new technology and aligned the industry with global developments.

**12.Give reasons as to why the ideal location of sugar mills is near sugarcane producing areas. Support the statement with reasons.**

**ANSWER:**

Sugar industries are concentrated in the sugarcane producing areas:
**(i)** Sugarcane is a perishable good, it looses its sucrose content if delays in transportation occurs, so it needs to be in the nearby place.
**(ii)** Sugarcane is bulky and perishable, so transportation cost reduces.
**(iii)** Near it is to the production area, its production automatically increases.
**(iv)** The raw material used in the sugar mills, that sugarcane is bulky.
**(v)** In haulage, its sucrose content reduces.

**Challenges:**
**(i)** Seasonal nature of the industry.
**(ii)** Old and inefficient methods of production.
**(iii)** Transport delays in reaching cane to the mills.
**(iv)** Need to maximise the use of bagasse.

# MULTIPLE CHOICE QUESTIONS

**1) The contribution of manufacturing to the GDP of some East Asian economies is _____.**

a) 25 to 35 per cent

b) 5 to 10 per cent

c) 5 to 15 per cent

d) Above 50%

**Answer: Option (a)**

**2) Industrial locations are influenced by the availability of _____.**

a) Market

b) Labour

c) Raw materials

d) All of the above

**Answer: Option (d)**

**3) On the basis of raw materials used, industries are classified as _____.**

a) Public sector and private sector

b) Basic industries and consumer industries

c) Agro-based and mineral-based industries

d) None of the above

**Answer: Option (c)**

**4) _____ is an example of a private sector industry.**

a) BHEL

b) TISCO

c) SAIL

d) CIL

**Answer: Option (b)**

**5) _____ are owned and operated by the producers or suppliers of raw materials, workers or both.**

a) Cooperative sector industries

b) Heavy industries

c) Light industries

d) Public sector companies

**Answer: Option (a)**

**6) _____ is the 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.**

a) Agriculture industry

b) Textile industry

c) Light industry

d) Heavy industry

**Answer: Option (b)**

**7) _____ is the second largest industry in India in terms of employment generation, giving employment to 35 million people.**

a) IT industry

b) Semiconductor industry

c) Agriculture industry

d) Textile industry

**Answer: Option (d)**

**8) The contribution of the textile industry to India's GDP is _____.**

a) 20%

b) 15%

c) 4%

d) 10%

**Answer: Option (c)**

# FILL IN THE BLANKS

1 The first successful textile mill was established in  **Bombay** in 1854.

2. In the early years, the cotton textile industry was concentrated in the cotton growing belt of  and  **Maharashtra** and **Gujarat.**

3. Which of the following is not a centre of silk industries  **Aurangabad.**

4.Which of the following is a centre for woollen textiles **Bikaner.**

5.Which of the following is a centre for cotton textiles **Jalgaon.**

## SUMMARY

The manufacturing industry as the name suggests deals with the manufacturing of finished new products from raw materials or essential parts. This process of transforming raw materials or unfinished products to new finished products can involve physical, chemical, or mechanical transformations.