

Chapter 6: Manufacturing Industries – CBSE Notes

◆ 1. What is Manufacturing?

✓ **CBSE Repeated Question:** *Define manufacturing.*

- **Manufacturing** is the process of converting raw materials into **more valuable finished goods**.
- It falls under the **secondary sector**.
- Examples: Paper from wood, sugar from sugarcane, steel from iron ore, textiles from yarn.

◆ 2. Importance of Manufacturing Industry

✓ **Frequently Asked:** *Why is manufacturing considered the backbone of development?*

- Modernizes agriculture and reduces dependency on it.
- Reduces **unemployment** and **poverty**.
- Expands **trade** and earns **foreign exchange**.
- Helps in **balanced regional development**.
- Supports agriculture (e.g., irrigation pumps, fertilizers).
- Builds infrastructure and raises living standards.

◆ 3. Classification of Industries

Basis	Types	Examples
Raw Material	Agro-based, Mineral-based	Cotton, jute / Iron, steel
Role	Basic (key), Consumer	Iron & steel / Sugar, toothpaste
Investment	Small-scale, Large-scale	Handicrafts / TISCO
Ownership	Public, Private, Joint, Cooperative	SAIL, TISCO, Oil India Ltd, AMUL
Weight/Bulk	Heavy, Light	Steel / Electronics

◆ 4. Agro-Based Industries

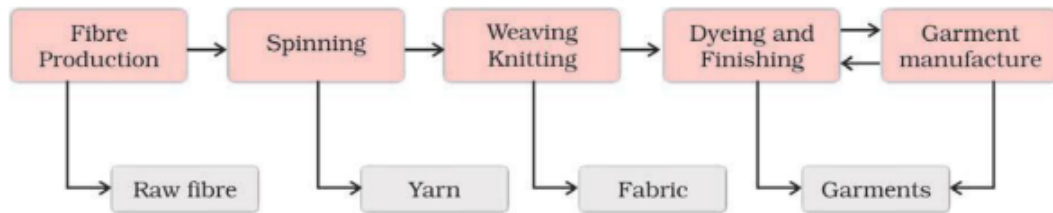


Fig. 6.1: Value addition in the textile industry

a. Cotton Textile Industry

✓ **Repeated Topic:** *Why is this industry important?*

- India: large producer of cotton textiles.
- Self-reliant: from raw cotton to final cloth.
- Located in: Maharashtra, Gujarat, Tamil Nadu.
- Decentralized weaving → handloom, power loom, mill.
- Khadi – promoted by Gandhi for self-reliance.

b. Jute Industry

- India: Largest producer, 2nd exporter (after Bangladesh).
- Mills in **West Bengal**, along **Hooghly River**.
- First jute mill: Rishra (1855).
- Setback after Partition (1947): 3/4th jute land went to Bangladesh.

c. Sugar Industry

- India: 2nd largest sugar producer.
- Mills mainly in UP, Bihar (60%).
- Trend: Shifting to Maharashtra & South India (better sucrose, longer season).
- **Seasonal industry** → best suited for cooperative sector.

◆ 5. Mineral-Based Industries

a. Iron and Steel Industry

✓ **Repeated Long Answer:** *Why is it called a basic industry?*

- Backbone of industrial development.
- Raw materials: Iron ore, coal, limestone (4:2:1).
- Chhota Nagpur plateau – major belt (Jharkhand, Odisha).
- Public sector plants: Bhilai, Bokaro, Rourkela, Durgapur.
- TISCO – first private steel plant (Jamshedpur, 1907).
- Heavy industry → raw material + transport intensive.

b. Aluminium Smelting

- 2nd most important metallurgical industry.
- Lightweight, corrosion-resistant, good conductor.
- Raw material: **Bauxite**; also needs cheap electricity.

- Plants in: Odisha, WB, Chhattisgarh, Maharashtra.

◆ 6. Other Major Industries

a. Chemical Industry

- Inorganic: Acids, alkalies, soda ash.
- Organic: Petrochemicals → plastic, rubber, dyes.
- Spread across India; some near oil refineries.

b. Fertilizer Industry

- Expanded after Green Revolution.
- Produces Urea, DAP, NPK.
- Major states: Gujarat, TN, UP, Punjab, Kerala.

c. Cement Industry

- Uses: Limestone, silica, gypsum.
- Used in housing, roads, dams, airports.
- Plants in MP, Gujarat, TN, Chhattisgarh.

d. Automobile Industry

- Vehicles: cars, buses, trucks, bikes.
- Centres: Delhi, Pune, Chennai, Gurugram, Lucknow, Indore.

e. Electronics/IT Industry

- Products: Computers, TV, mobile, telecom.
- Bengaluru – “Electronic Capital”.
- Also in: Noida, Pune, Hyderabad, Chennai.

◆ 7. Industrial Pollution and Environmental Degradation

✓ Common 5-Mark Question

Types of Pollution Caused:

Type	Sources
Air	Factories, kilns, refineries, fossil fuels
Water	Chemicals from textile, tanneries, dyes
Land	Dumping waste, glass, sludge
Noise	Machines, drills, generators

◆ 8. Control of Environmental Degradation

✓ **Board Repeated:** *Suggest ways to control pollution*

Steps:

- **Recycle & reuse water** in industries.
- **Harvest rainwater.**
- **Treat effluents** (primary, secondary, tertiary).
- **Reduce smoke:** Use gas/oil instead of coal.
- Fit **silencers**, use **noise-absorbing materials**.
- Create **green belts**, use **ash ponds** (thermal plants).
- Promote **sustainable development**.

✓ Key Definitions

- **Manufacturing:** Production of goods from raw materials to finished products.
- **Basic Industry:** Supplies raw material to other industries (e.g., iron & steel).
- **Agro-based Industry:** Uses agricultural produce as raw material.
- **Heavy Industry:** Deals with bulky raw materials and products.
- **Pollution:** Undesirable change in environment due to human/industrial activity.

📌 **CBSE Focus: Repeated Topics to Prepare**

Topic	Type of Question
Classification of industries	MCQs and short answers
Cotton/Jute/Textile industry	3–5 mark descriptive
Iron & steel industry location	Common long answer
Industrial pollution & control	Repeated 5-marker
Cement, Fertilizer, Aluminium	State-based, location reasons
IT & Automobile sector	Current trend and employment