Social Science Class 10

Important Questions Geography

Chapter 6

Manufacturing Industries

Very Short Answer Question s (VSA) 1 Mark

Question 1.
How is economic strength of a country-measured?
Answer:
The economic strength of a country is measured by the development of manufacturing industries.

Question 2.
What is NMCC?
Answer:
National Manufacturing Competitiveness Council.

Question 3.
What are the benefits of cities in industrialisation?
Answer:
Cities provide markets and provide services such as banking, insurance, transport, labour, consultants and financial advice etc. to the industry.

Question 4.
Name the places where most manufacturing units were located before independence.
Answer:
Mumbai, Kolkata, Chennai.

Question 5.
Which are the factors for the ideal location of industry? Mention any one.
Answer:
Availability of raw material.

Question 6.
Mention any two agro-based industries.
Answer:
Cotton and woolen textile industry.

Question 7.
How industries are divided on the basis of capital investment?
Answer:

1. Small scale industry.
2. Large scale industry.

Question 8.
Mention the industries on the basis of ownership.
Answer:

1. Public sector owned and operated by the government agencies – BHEL.
2. Private sector owned and operated by individuals – TISCO.
3. Joint sector which are owned and run jointly by the state and individuals – Oil India Ltd.
4. Cooperative sector industries owned and operated by the producers or suppliers of raw material, workers or both g. sugar industry in Maharashtra.

Question 9.
In which state spinning continues to be centralised?
Answer:
Maharashtra, Gujarat and Tamil Nadu.

Question 10.
Mention two places of silk textile industries.
Answer:
Srinagar, Anantnag and Baramula in Jammu & Kashmir.

Question 11.
Where most of the jute mills are located?
Answer:
Most of the jute mills are located in West Bengal mainly along the banks of the Hugh river.

Question 12.
State one reason for increase in internal demand for jute products.
Answer:
The internal demand has been on the increase due to government policy of mandatory use of jute packaging.

Question 13.
In which year the National Jute Policy was formulated?
Answer:
2005.

Question 14.
What is the position of India in the production of sugar, gur and khandsari ?
Answer:
India stands second as a world producer of sugar but occupies the first place in the production of gur and khandsari.

Question 15.
In recent years why is there a tendency for the sugar mills to shift and concentrate in the Southern and Western states? State any one reason.
Answer:
The sugarcane produced there has a higher sucrose content.

Question 16.
What are the challenges before sugar industry? Mention any one.

Answer:
Old and inefficient methods of production.

Question 17.
What do you mean by mineral based industries? Give one example.
Answer:

1. Industries that use minerals and metals as raw materials are called mineral based industries.

    1. Iron and steel
    2. Cement.

Question 18.
State any one feature of iron and steel industry.
Answer:
Iron and steel is a heavy industry because all the raw materials as well as finished goods are heavy and bulky entailing heavy transportation costs.

Question 19.
Name any one integrated steel plant.
Answer:
TISCO.

Question 20.
By which authority, the steel of all public sector undertaking is marketed?
Answer:
All public sector undertaking market their steel through, Steel Authority of India Ltd.

Question 21.
Why the Chhotanagpur region has the maximum concentration of iron and steel industries?
Answer:
The Chhotanagpur region has the maximum concentration of iron and steel industries due to low cost of iron ore, high grade raw material in proximity, cheap labour and vast growth potential in the home market.

Question 22.
State any one feature of aluminium smelting industry.
Answer:
Aluminium is light, resistant to corrosion, a good conductor of heat, malleable and becomes strong when it is mixed with other metals.

Question 23.
What is the contribution of chemical industry in the GDP?
Answer:
The chemical industry contributes approximately 3 per cent of the GDP.

Question 24.
Which are organic chemicals? How are they used?
Answer:

Organic chemicals include petrochemicals which are used for manufacturing of synthetic fibres, synthetic rubber, plastics, dye-stuffs, drugs, and pharmaceuticals.

Question 25.
When the fertiliser industry has expanded significantly?
Answer:
After the Green Revolution the fertiliser industry has expanded significantly to many parts of the country.

Question 26.
Which materials are required by the cement industry?
Answer:
The cement industry requires bulky and heavy raw materials like limestone, silica, alumina and gypsum.

Question 27.
What is the main cause for rapid strides in the cement industry in 1980s and 1990s?
Answer:
Decontrol of price and distribution since 1989 and other policy reforms led the cement industry to make rapid strides in capacity, process, technology and production.

Question 28.
What is the use of automobiles?
Answer:
Automobiles provide vehicle for quick transport of good services and passengers.

Question 29.
Which city has emerged as the electronic capital of India?
Answer:
Bangalore. ,

Question 31.
What does the software technology park provide?
Answer:
The software technology parks provide single window service and high data communication facility to software experts.

Question 32.
Which machine helps in reducing noise pollution?
Answer:
Silencers.

Question 33.
Name any two industries that are responsible for water pollution.
Answer:
Chemical, textile, dying and petroleum refineries.

Question 34.
What is manufacturing? To which sector of economy does it belong?
Or

“The economic strength of a country is measured by the development of manufacturing industries”. Support the statement with arguments.
Answer:
Manufacturing. Production of goods in large quantities after processing from raw materials to more valuable products is called manufacturing.
Manufacturing belongs to secondary sector in which the primary materials are processed and converted into finished goods. The economic strength of a country is measured by the development of manufacturing industries.

Question 35.
Write the importance of ‘manufacturing sector’ for our nation.
Or, “Manufacturing industry is considered the backbone of economic development of India.” Give reasons.
Answer:
Importance of manufacturing industries for India:

1. It helps in modernizing agriculture, which is the base of our economy.
2. It reduces heavy dependence on agricultural income by providing jobs in non-agricultural sectors.
3. Industrial development is necessary for eradication of poverty and unemployment because people get jobs and generate more income.
4. Export of manufactured goods expands trade and brings in much needed foreign exchange.
5. Industries bring riches faster to a nation because manufacturing changes raw materials into finished goods of a higher value, so industrial development brings prosperity to the country.

Question 36.
“Agriculture and industry are not exclusive of each other, but move hand in hand.” Give arguments in favor of this statement.
Or,
Explain with examples how industries in India have given a major boost to agriculture.
Answer:
Agriculture and industry in India are inseparable or interdependent on each other:

1. Agro-industries in India have boosted agriculture by raising its productivity.
2. Industries depend on agriculture for their raw materials, e.g. cotton textile industry.
3. Industries provide many agricultural inputs like irrigation pumps, fertilisers, insecticides, PVC pipes, machines and tools etc. to the farmers.
4. Manufacturing industries have assisted agriculturists to increase their production and also made the production processes very efficient.
5. Development of different modes of transport by industrial sector has not only helped farmers to obtain agricultural inputs but has also helped them trade their products.

Question 37.
Write the contribution and present growth rate of manufacturing sector in national economy. Suggest measures to increase the industrial growth rate.
Answer:
The share of manufacturing sector has stagnated at 17% of GDP. The trend of growth rate over the last decade has been around 7% per annum. Since 2003, it has shown an increased growth rate of 9-10% per annum. The desired growth rate over the next decade is 12%. To attain this target, following steps can be taken:

1. Appropriate policy interventions by the government.
2. Renewed efforts by the industries to improve productivity.

Question 38.
List the major factors which affect the location of an industry at a place. What is the key to the

decision of ‘factory location’?
Answer:

1. Raw material. Cheap and abundant availability of raw material. Industries which use heavy and perishable raw material have to be located close to the source of raw material.
2. Labour. Availability of cheap labour is necessary for keeping the cost of production low.
3. Power. Cheap and continuous supply of power is extremely necessary for continuity in the production process.
4. Capital. It is necessary for developing infrastructure, for the entire manufacturing process and for meeting manufacturing expenditure.
5. Banking and insurance facilities, favourable government policies are other factors which affect location of an industry.
   The ‘key’ to the decision of a factory location is least cost so that the venture is profitable.

Question 39.
“Industrialisation and urbanisation go hand in hand.” Explain.
Answer:
After an industrial activity starts, urbanisation follows. Some industries are located in and around the cities. Thus industrialisation and urbanisation go hand in hand. Cities provide markets, services such as banking, insurance, transport, labour, consultants and financial advice, etc. to industries.

Question 40.
What are ‘agglomeration economies’ in the industrial context?
Answer:
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 or clustering takes place around an urban centre.

Question 41.
State any five basis on which industries are classified.
Answer:

1. On the basis of source of raw materials used — Agro-based and mineral-based.
2. According to their main role — Basic and Consumer industries.
3. On the basis of capital investment—Small-scale and large-scale industries.
4. On the basis of ownership — Public Sector, Private Sector, Cooperative Sector, Joint Sector.
5. Based on the bulk and weight of raw material and finished goods—heavy industries, Light industries.

Question 42.
Classify industries on the basis of capital investment. How are they different from one another? Explain with examples.
Answer:
On the basis of capital investment industries can be classified as:

1. Small-scale industry
2. Large-scale industry

Difference:
If the investment is more than one crore rupees in any industry, it is considered as a large scale industry.
For example, Iron and Steel industry, cement industry.
If the investment is less than one crore rupees in any industry, it is considered as a small scale industry.
For example, Plastic industry, Toy industry.

Question 43.
Classify industries on the basis of source of raw material. How are they different from each other?
Answer:
On the basis of sources of raw material industries are classified as:
(i) Agro based industries;
(ii) Mineral based industries
Difference between Agro-based industries and Mineral-based industries

Agro-based industries	Mineral-based industries
They obtain their raw materials from agricultural products. Example: Textiles —cotton, jute, silk and woolen. Rubber, Sugar, Coffee, Tea and Edible Oil, etc.	They obtain their raw materials from minerals. Example: Iron and steel, cement, machine tools, petro-chemicals, etc.

Question 44.
Explain the types of industries on the basis of ownership and give one example of each.
Answer:
Four types of industries based on ownership are:

1. Public Sector industries. They are owned and operated by government agencies, e.g. BHEL, SAIL, etc.
2. Private Sector industries are owned and operated by an individual or a group of individuals, e.g. TISCO, Bajaj Auto Ltd., Dabur Industries.
3. Joint Sector industries are jointly run by the Public (government) and Private Sector (individuals), e.g. Oil India Ltd.
4. Cooperative Sector 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, e.g. sugar industry in Maharashtra and coir industry in Kerala.

Question 45.
Name four agro-based and four mineral-based industries.
Answer:
Four Agro-based industries are cotton textile, jute textile, sugar industry and edible oils industry.
Four Mineral-based industries are iron and steel industry, aluminium industry, copper smelting industry and cement industry.

Question 46.
Explain the role of agro-based industries in Indian economy.
Answer:
Role of agro-based industries in Indian economy:

1. The agro-based industries in India have given a major boost to agriculture by raising its productivity as they obtain their raw material from agriculture.

2. Development and competitiveness of industries has not only assisted agriculturists in increasing their production but also made the production processes very efficient.
3. The farmers are heading for commercial farming to produce high value crops for industries. This may in turn help improve the economic status of the farmers.
4. These agro-based industries, by creating demand, support the growth of many other industries e.g., packaging materials and engineering works etc.

Question 47.
Explain the significance of textile industry in India.
Or
The textile industry is the only industry which is self-reliant and complete in the value-chain? Justify this statement?
Or
"Textile industry occupies a unique position in the Indian economy". Support the statement with appropriate arguments.
The Textile industry occupies a unique position in the Indian Economy because:

1. It contributes significantly to industrial production (14%).
2. It employs largest number of people after agriculture, i.e. 35 million persons directly.
3. Its share in the foreign exchange earnings is significant at about 24.6%.
4. It contributes 4% towards GDP.
5. It 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.

Question 48.
Write the stages of the development of cotton textile industry in India from ancient to modern times.
Answer:
Stages of development of Cotton Textile Industry in India:

1. In ancient India, cotton textiles were produced with hand spinning and handloom weaving techniques.
2. After the 18th century, powerlooms came into use.
3. Our traditional industries suffered a setback during the colonial period because they could not compete with the mill-made cloth from England.
4. Today, there are nearly 1600 cotton and human-made fibre textile mills working at various levels and owned by varied sectors. It is a decentralised industry today.

Question 49.
List factors which favoured the location and concentration of cotton textile industry in Maharashtra and Gujarat in early years.
Answer:

1. Availability of raw cotton was abundant and cheap because these are the traditional cotton growing States.
2. Moist climate in these coastal States also helped in the development of cotton textile industry because humid conditions are required for weaving the cloth, else the yarn breaks.
3. Well-developed transportation system and accessible port facilities in Maharashtra and Gujarat led to their concentration there.
4. Proximity to the market is yet another factor as cotton clothes are ideal and comfortable to wear in these warm and humid States.
5. Cheap labour was abundantly available.

Question 50.
Write two major differences between the weaving and spinning sectors of cotton textile industry.
Answer:

Spinning Sector	Weaving Sector
1. Spinning is a centralised activity mainly done in Maharashtra, Gujarat and Tamil Nadu.	1. Weaving is a highly decentralised activity. It provides scope for incorporating traditional skills with modernity. So weaving is done at various levels, example, handlooms, power- looms, etc.
2. India has world class production in spinning.	2. Weaving supplies low quality of fabric as it cannot use much of the high quality yam.

Question 51.
Name the main countries to which India exports its cotton yarn and cotton goods.
Answer:
The major countries are: Japan, USA, UK, Russia and France.

Question 52.
What are the problems faced by the cotton textile industry?
Answer:
Problems faced by the cotton textile industry:

1. Power supply is erratic in our country.
2. Machinery needs to be upgraded, especially in weaving and processing sectors.
3. Low output of labour.
4. We still need to import cotton in spite of the fact that the production of cotton in the country has increased.
5. Stiff competition from the synthetic fibre industry.

Question 53.
Explain the main factors which are responsible for the concentration of jute mills along the banks of Hugli River.
Answer:
Factors responsible for the concentration of jute industry on the banks of Hugli:

1. Proximity of the jute producing areas to the Hugli Basin.
2. Inexpensive water transport provided by the Hugli River.
3. It is well connected by a good network of railways, waterways and roadways to facilitate movement of raw materials to the mills.
4. Abundant water for processing raw jute.
5. Availability of cheap labour from West Bengal and the adjoining States of Bihar, Orissa and Uttar Pradesh.
6. Kolkata as a port and large urban centre, provides banking, insurance and port facilities for export of jute goods.

Question 54.
Write down the major problems/challenges faced by the jute industry.

Answer:
The major challenges faced by the jute industry:

1. Stiff competition in the international market from synthetic substitutes.
2. Stiff competition from other competitors like Bangladesh, Brazil, Philippines, Egypt and Thailand.
3. The demand for jute products is declining both in international as well as domestic markets.
4. The cost of production is high and many jute mills still have obsolete machinery.

Question 55.
What are the objectives of formulating National Jute Policy? In which year was this policy formulated?
Do you think that the demand for jute products will pick up at global level and why?
Answer:
National Jute Policy was formulated in 2005 with the following objectives:

1. For increasing productivity
2. For improving quality
3. For ensuring good prices to the jute farmers
4. For enhancing the yield per hectare

Yes, the demand for jute products in the world market will grow. The growing global concern for environment friendly, biodegradable material, also led to the government policy of mandatory use of jute packing.

Question 56.
Name some countries which are the main buyers of Indian jute products.
Answer:
The main buyers of Indian jute products are:

1. USA
2. Canada
3. Russia
4. United Arab Republic
5. UK
6. Australia

Question 57.
Why are the sugar mills located close to the sugarcane fields?
Or
Why are sugar mills concentrated in sugarcane producing areas?
Answer:
Reasons for location of sugar mills close to the fields:

1. The raw material used, (i.e.,) sugarcane is bulky and perishable.
2. It cannot be transported to long distances because its sucrose content dries up fast, so it should be processed within 24 hours of its harvest.

Question 58.
Write the distribution of sugar industry in India.
Answer:
There are over 460 sugar mills in the country. Out of these, 60% mills are in Uttar Pradesh and Bihar. Rest of the mills are spread over Maharashtra, Tamil Nadu, Andhra Pradesh, Gujarat and Punjab.

Question 59.
Why are sugar mills shifting and concentrating in southern and western State of India? Give reasons.
Answer:
Sugar Industry is shifting towards southern and western States, because:

1. Cane produced here has higher sucrose content.
2. The favorable climatic conditions (cooler climate) ensure a longer growing and crushing season.
3. The Cooperatives are more successful in these States and sugar industry being seasonal in nature, is ideally suited to cooperative sector.
4. Yield per hectare is higher in southern States.

Question 60.
What are the major challenges faced by sugar industry?
Answer:
Challenges faced by the sugar industry:

1. Seasonal nature of the industry.
2. Old and inefficient methods of production.
3. Delays in transportation of cane to the factories.
4. The need to maximize the use of bio gas.

Question 61.
Why is iron and steel industry called the basic or key industry? Explain.
Answer:

1. Since all the other industries—heavy, medium and light, depend on it for their machinery.
2. Steel is needed to manufacture a variety of engineering goods.
3. Steel is needed for construction material, defense and medical equipment's.
4. Steel is needed for telephonic, scientific equipment and a variety of consumer goods.
5. Production and consumption of steel is often regarded as the index of a country's development.

Question 62.
(a) Why is iron and steel industry called a heavy industry? Give reasons.
(b) Write four raw materials of iron and steel industry and the proportions in which they are required.
Answer:
(a) Iron and steel industry is a heavy industry because:

1. All the raw materials used are heavy and bulky.
2. The finished goods are also very heavy and bulky entailing heavy transportation costs.
3. Iron-ore, coal, limestone are the major raw materials used in producing iron and steel and they are heavy.
4. Transportation costs of raw materials and finished goods of iron and steel industry are heavy (costly).
5. Efficient transport network is needed for its distribution.

(b) The raw materials of iron and steel industry are:

1. Iron ore, coking coal and limestone are required in the ratio of 4 : 2 : 1.
2. Manganese is required in some quantity to harden the steel.

Question 63.
Describe India's position in the world regarding production of steel and its consumption.
Answer:

1. India produces 32.8 million tons of steel.
2. India ranks 9th among the world's crude steel producers.
3. It is the largest producer of sponge iron.
4. However, its per capita consumption per annum is only 32 kg.

Question 64.
Name the marketing body through which all public sector undertakings market their steel.
Answer:
Steel Authority of India Limited. (SAIL)

Question 65.
What is the major difference between integrated steel plants and mini steel plants?
Answer:
An integrated steel plant is large and handles everything in one complex—from putting together raw materials in the blast furnace to steel making, rolling and shaping. An integrated steel plant uses a blast furnace and iron-ore as raw material.
Mini steel plants are smaller, have electric furnaces, use steel scrap and sponge iron. They have re-rollers that use steel ingots also. They produce mild and alloy steel of given specifications.

Question 66.
Why are most of the iron and steel industries concentrated in and around Chotanagpur Plateau Region? Give reasons.
Answer:
Reasons:

1. Low cost of iron-ore which is mined here.
2. High grade raw materials in close proximity.
3. Availability of cheap labor.
4. Vast growth potential in the home market.
5. Efficient transport network for their distribution to the markets and consumers.
6. Availability of power because this region has many thermal and hydel power plants.
7. Liberalisation and FDI have also given boost to the industry with efforts of private entrepreneurs.

Question 67.
What problems does the iron and steel industry in India face?
Or,

Why is India not able to perform to her full potential in iron and steel production? Explain.
Answer:
In spite of being an important producer of iron and steel, India has not been able to exploit her complete potential, because of:

1. High cost of production and limited availability of coking coal.
2. Lower productivity of labor.
3. Irregular supply of energy.
4. Poor infrastructure.

Question 68.
What recent developments have led to a rise in the production capacity of the iron and steel industry?
Answer:

1. In recent years, liberalisation policy of the government and increased Foreign Direct Investment in the industry combined with the efforts of private entrepreneurs and firms have increased production capacity.
2. Greater allocation of funds and resources for research and development in the production of steel will provide a boost to the industry.

Question 69.
Write four characteristics and four major uses of aluminum.
Answer:
Four characteristics of aluminum:

1. It is a light metal.
2. It is resistant to corrosion.
3. It is a good conductor of heat.
4. It is malleable and becomes strong when mixed with other metals.

Four uses (importance) of aluminum.

1. It is used for manufacturing aircrafts.
2. It is used for making utensils and packing material.
3. It is used for making wires.
4. It has gained popularity as a substitute of steel, copper, zinc and lead in a number of industries.

Question 70.
How many aluminum smelting plants are set up in India? Write their distribution.
Answer:
There are eight aluminum smelting plants in the country. They are located in the states of Orissa (Nalco and Balco), West Bengal, Kerala, Uttar Pradesh, Chhattisgarh, Maharashtra and Tamil Nadu. Together they produced 600 metric tons of aluminum in 2004.

Question 71.
(a) Name the mineral used for obtaining aluminum. Write its one important characteristic by which it can be identified.
(b) List two prime factors required for the location of an aluminum smelting plant.
Answer:
(a) Bauxite is the raw material used in aluminum industry. It can be identified by its dark reddish colour and bulky nature.
(b) Two prime factors required for the location of aluminum melting plant are:

- Regular and cheap supply of electricity.
- An assured source of raw material at a minimum cost.

Question 72.
Give reasons to highlight the importance of chemical industry in Indian economy.
Answer:
Importance of chemical industry:

1. It contributes approximately 3% of the GDP.
2. It is the 3rd largest in Asia and occupies 12th position in the world in terms of its size.
3. It comprises both large and small-scale manufacturing units producing a variety of items, ranging from plastic, rubber, soaps, and chemical fertilizers to pharmaceuticals.
4. The chemical industry is its own largest consumer. Basic chemicals undergo processing to further produce other chemicals that are used for industrial application, agriculture or directly for consumer markets.

5. The chemical industry in India is fast growing and diversifying in both organic and inorganic chemicals, thereby generating lot of employment.

Question 73.
Name two groups into which the chemical industry is usually classified. What is the main difference in their locations over space and why?
Answer:
The two groups are:

1. Inorganic chemical industry
2. Organic chemical industry.

Inorganic chemical industries are widely spread over the country because they use inorganic chemicals like sulphuric acid, nitric acid, alkalies, soda ash and caustic soda which can be transported anywhere.
Organic chemical plants are located near oil refineries or petrochemical plants so these are located at specific locations.

Question 74.
List five products each of inorganic and organic chemical industry.
Answer:
Products of

Organic Chemical Industry	Inorganic Chemical Industry
1. Synthetic fibres	1. Fertilisers
2. Synthetic rubber	2. Adhesives and paints
3. Plastics	3. Glass
4. Dye-stuffs	4. Soaps and detergents
5. Drugs and pharmaceuticals	5. Synthetic fibres and plastics

Question 75.
Name four major groups of fertilizers produced in India.
Answer:
Main groups of fertilizers produced in India are:

1. Nitrogenous fertilizers (mainly urea).

2. Phosphatic fertilizers.
3. Ammonium phosphate (DAP).
4. Complex fertilizers which have a combination of nitrogen, phosphate and potash.

Question 76.
Name the fertilizers which India needs to import and why?
Answer:
Potash is entirely imported as India does not have any reserves of commercially usable potash or potassium compounds in any form.

Question 77.
What is India's position in the world with regard to the production of nitrogenous fertilizers?
Answer:
India is the 3rd largest producer of nitrogenous fertilizers, because:

1. There are 57 fertilizer units manufacturing nitrogenous and complex nitrogenous fertilizers — 29 for urea and 9 for producing ammonium sulphate as a by-product.
2. There are 68 other small units which produce single super-phosphate.
3. At present there are 10 Public Sector undertakings.
4. One unit is in the Cooperative Sector at Hazira in Gujarat under the Fertilizer Corporation of India (FCI).

Question 78.
What is the main reason for the fertilizer industry to expand in several parts of the country? Name the states which together produce about 50% of the country's fertilizers.
Answer:
After the Green Revolution, the fertilizer industry expanded to several parts because natural gas could be transported by pipelines to any desired location.
States which produce about 50% of the fertilizers are:

1. Gujarat
2. Tamil Nadu
3. Uttar Pradesh
4. Punjab and
5. Kerala.

Question 79.
Name the important raw materials used in the manufacturing of cement.
Answer:
Raw materials used in cement industry are:

1. limestone
2. silica
3. alumina
4. Gypsum.

Question 80.
Write down the locational factors of cement industry.
Answer:
Factors which affect location of cement industry are:

1. Availability of raw materials which are heavy and bulky, e.g., limestone, silica, etc.
2. Availability of coal and electric power.
3. Rail transportation.

Question 81.
What factors led to the rapid expansion of cement industry in India?
Answer:
Factors that led to rapid expansion of cement industry are:

1. Decontrol of cement price since 1989.
2. Decontrol of distribution of cement since 1989.
3. Many other policy reforms led the cement industry to expand in capacity, process, technology and production. Today, there are 128 large plants and 332 mini cement plants in the country, producing variety of cement.

Question 82.
Why does Indian cement have a large demand in the international market and whom do we export to?
Answer:
Because of the good quality cement being produced in India, it has found a readily available market in South and East Asia, Middle East and Africa.

Question 83.
Why has the automobile industry of India witnessed fast growth? Give reasons.
Answer:
Reasons for fast growth in automobile industry:

1. After liberalisation, the coming in of new and contemporary models stimulated the demand for vehicles in the market.
2. This led to the healthy growth of the industry including passenger cars, two and three-wheelers.
3. Foreign Direct Investment (FDI) brought in new technology and aligned the industry with global developments.
4. Trucks, buses, cars, motorcycles, scooters, three-wheelers and multi-utility vehicles and commercial vehicles are manufactured in India at various centres such as Delhi, Gurgaon, Mumbai, Jamshedpur etc.
   This industry has experienced a quantum jump in less than 15 years.

Question 84.
“Electronic industry has revolutionized the life of the masses and the country’s economy.” Justify the statement with suitable arguments.
Answer:
Electronic industry has revolutionized the life of the people and the country’s economy because:

1. It produces a wide range of products from transistor sets to televisions and computers for the masses.
2. It has helped us set up telephone exchanges, telephones, cellular telecom, radios and many other equipments which have application in space technology, aviation, defence, meteorological departments, etc.
3. It has generated employment for a large number of people. It employed over one million people by March 2005, out of these 30% are women employees.
4. This industry has been a major foreign exchange earner because of its fast growing Business Process Outsourcing (BPO) Sector.
5. India is one of the leading countries in software development. We have 18 software technology parks which provide high data communication facility to software experts.

Question 85.
Write the distribution of the electronics industry.
Answer:
Bangalore has emerged as the electronic capital of India. Other important centres for electronic goods are the four mega cities of Hyderabad, Pune, Lucknow and Coimbatore.

Question 86.
What is a software technology park? How many such parks do we have? Name the technology park which is closest to Delhi.
Answer:
Software technology parks provide single window service and high data communication facility to software experts.
We have 18 software technology parks. Noida Software Technology Park is the closest to Delhi.

Question 87.
Explain how industries cause air pollution.
Answer:
Air pollution is caused by the industries in the following ways:

1. The presence of high proportion of undesirable gases, such as sulphur dioxide and carbon monoxide in the smoke emitted from the industries causes air pollution.
2. Smoke is emitted by chemical and paper factories, brick kilns, refineries and smelting plants, and burning of fossil fuels in factories that ignore pollution norms.
3. Air-borne particulate materials contain both solid and liquid particles like dust, sprays, mist and smoke.
4. Toxic gas leaks can be very hazardous with long-term effects, e.g., Bhopal gas leak tragedy.

Question 88.
Write down the adverse effects of air pollution.
Answer:
Air pollution adversely affects:

1. human health,
2. animals and plants,
3. buildings and
4. Atmosphere as a whole resulting in climate change.

Question 89.
Suggest measures to control air pollution caused by industries.
Answer:
Measures to control air pollution:
(i) Particulate matter in the air can be reduced by fitting smoke stacks to factories with fabric filters, electrostatic precipitators etc.
(ii) Equipment's to control aerosol emissions can be used in industries, e.g., electrostatic precipitators, scrubbers and inertial separators.
(iii) Smoke can be reduced by using oil or gas instead of coal in factories.(a) How are water bodies polluted by industries?

(b) Give examples of industries which cause a lot of water pollution.
(a)

1. Water pollution is caused by organic and inorganic industrial wastes and affluents discharged into rivers.
2. Major water pollutants are dyes, detergents, acids and salts.
3. Heavy metals like lead and mercury, pesticides and fertilizers and synthetic chemicals with carbon, plastics and rubber etc. discharged in the water bodies without treatment pollute these water bodies.
4. Solid wastes, e.g., fly ash, phospo-gypsum and iron and steel slags, etc. and wastes from nuclear power plants cause water pollution.
5. Dumping of harmful chemicals and industrial effluents etc. on the land causes rain-water to percolate. As a result, these pollutants contaminate ground water.

(b) Major water polluting industries are:

1. Paper and pulp industries
2. Petroleum refineries
3. Chemical industry
4. Tanneries
5. Textile and dyeing industries
6. Electroplating industries.

Question 90.
Suggest measures to control water pollution caused by industries.
Answer:

1. Minimising the use of water for processing by reusing and recycling it in two or more successive stages.
2. Harvesting of rain-water to meet water requirements of industries and other domestic purposes.
3. Treating hot water and effluents before releasing them in rivers and ponds in the following ways:

    1. Primary treatment by mechanical means such as screening, grinding, flocculation and sedimentation.
    2. Secondary treatment by biological process.
    3. Tertiary treatment by biological, chemical and physical processes. This involves recycling of waste water.

Question 91.
What is noise pollution? Write its effects on human health and suggest ways to reduce industrial noise pollution.
Answer:
Noise pollution: Unwanted loud noise is an irritant and a source of stress.
Effects of noise pollution on human health:

1. Noise pollution results in irritation and anger.
2. It can cause hearing impairment.
3. It can increase heart rate.
4. It can raise blood pressure.
5. There can be physiological effects as well.

Ways to reduce industrial noise pollution:

1. Machinery and equipment can be fitted with silencers.
2. Almost all machinery can be redesigned to increase energy efficiency and reduce noise.
3. Noise absorbing material may be used apart from personal use of earplugs and earphones.

Question 92.
How do industries pollute environment? Explain with five examples.
Answer:
The five types of industrial pollution are:

1. Air pollution. Smoke is emitted by chemical and paper factories, brick kilns, refineries and smelting plants, and burning of fossil fuels in factories that ignore pollution norms. Air-borne particulate materials contain both solid and liquid particles like dust, sprays, mist and smoke.
2. Water pollution. Major water pollutants are dyes, detergents, acids and salts. Heavy metals like lead and mercury, pesticides and fertilizers and synthetic chemicals with carbon, plastics and rubber etc. discharged in the water bodies without treatment pollute these water bodies.

3. Noise pollution. The generators, compressors, machines, furnaces, looms, exhaust fans, etc. used by industries create a lot of noise. Noise can raise blood pressure and can have physiological effects as well.
4. Land pollution. Land and water pollution are closely related. Dumping of industrial wastes especially glass, harmful chemicals, industrial effluents, packing, salts and garbage renders the soil useless.
5. Thermal pollution. Wastes from nuclear power plants, nuclear and weapon production facilities cause cancer and birth defects.

Question 93.
Explain any five measures to control industrial pollution in India.
Answer:
Five measures to control industrial pollution:

1. Particulate matter in the air can be reduced by fitting smoke stacks to factories with fabric filters, electrostatic precipitators, etc.
2. Equipments to control aerosol emissions can be used in industries, e.g., electrostatic precipitators, scrubbers and inertial separators. Smoke can be reduced by using oil or gas instead of coal in factories.
3. Harvesting of rainwater to meet water requirements of industries and other domestic purposes.
4. Treating hot water and effluents before releasing them in rivers and ponds.
5. Machinery and equipment can be fitted with silencers.
6. Noise absorbing material may be used apart from personal use of earplugs and earphones.

Question 94.
Explain the pro-active approach adopted by the National Thermal Power Corporation (NTPC) for preserving the natural environment and resources?
Answer:
NTPC is taking the following measures in places where it is setting up power plants:

1. Optimum utilisation of equipment by adopting latest techniques and upgrading existing equipment.
2. Minimising waste generation by maximising ash utilisation.
3. Providing green belts for nurturing ecological balance.
4. Reducing environmental pollution through ash pond management, ash water recycling system and liquid waste management.
5. Ecological monitoring, reviews and online data base management for all its power stations.

Question 95.
Suggest any three steps to minimise the environmental degradation caused by the industrial development in India.
Answer:
Steps to minimize the environmental degradation caused by industrial development in India are:

1. Minimizing use of water for processing by reusing and recycling in two or more successive stages. Harvesting of rain water to meet water requirements of industries and other domestic purposes.
2. Treating hot water and effluents before releasing them in rivers and ponds.
3. Particulate matter in the air can be reduced by fitting smoke to factories with electrostatic precipitators, fabric filters, scrubbers and inertial separators. Smoke can be reduced by using oil or gas instead of coal in factories.
4. Machinery and equipments can be fitted with silencers to prevent noise pollution.

Question 96.
How manufacturing sector is considered the backbone of economic development of the country? Explain any three points in this regard.

Or

The economic strength of a country is measured by the development of manufacturing industries. Explain.

Answer:
The economic strength of a country lies in the development of manufacturing industries. It is the backbone of development in general and economic development in particular due to the following reasons:

1. Manufacturing industries help in modernising agriculture.
2. It reduces the heavy dependence of people on agricultural sector. At present more than half of the workers in the country are still working in the primary sector, mainly in agricultural activities. The workers in this sector are under employed.
3. It provides jobs in secondary and tertiary sectors.
4. Industrial development or manufacturing industries are necessary for the removal of unemployment and poverty in a country like India. This was the main philosophy behind public sector ventures in India.
5. It brings down regional disparities by establishing industries in tribal and backward areas.
6. Export of manufactured goods expands trade and commerce and brings in much needed foreign exchange.
7. The industries make a country rich and prosperous because raw materials are transformed into a wide variety of finished goods of higher value which increases the income.

Question 97.
"Agriculture and industry are complementary to each other." Explain with examples.

Or

How do industries give boost to the agriculture sector?

Answer:
It is true that agriculture and industry move hand in hand.

1. There are agro-based industries such as cotton, woollen, jute, edible oil that get their raw materials from agriculture.
2. In return, these industries sell their products such as irrigation pumps, fertilisers, insecticides, PVC pipes and many other things to the farmers.
3. Thus agro-industries has given boost to agriculture by raising its productivity and has made the production processes very efficient as well.

Question 98.
What is the contribution of industry to national economy in India? Compare it with the East Asian Countries. What is the desired growth and present position of industry in GDP?
Answer:

1. The contribution of industry to national economy has not been satisfactory for the last two decades. It has stagnated at 17 per cent of GDP — out of a total of 27 per cent for the industry which includes 10 per cent for mining, quarrying, electricity and gas.
2. In comparison to India's 17 per cent share in the GDP, the East Asian Countries have contributed 25 to 35 per cent to their GDP.
3. The trend of growth rate in manufacturing over the last decade has been around 7 per cent per annum.
4. The desired growth over the next decade is 12 percent.
5. At present growth rate is about 9 to 10 per cent and it is expected that we can achieve the growth rate of 12 per cent by some efforts like setting up of the National Manufacturing Competitiveness Council (NMCC).

Question 99.
Why are industries located in or near the cities?

Or

Why do the industrialisation and urbanisation go hand in hand? Explain.

Answer:

Industrialisation and urbanisation go hand in hand because sometimes industries are set up in or near the cities. The reasons for this are as mentioned below:

1. Industries need different types of services such as labour, banking, transport, insurance and financial consultants. Such services are available in cities.
2. In cities the manufactured products are sold. They become markets for these products and people are able to buy them according to their requirements.
   Availability of products attracts people from other parts to settle there. Thus, industrialisation leads to urbanisation.
3. Sometimes many industries are set up together to make use of the advantage offered by the urban centres known as agglomeration economies. Gradually a large industrial agglomeration takes place. Thus, it is correct to state that the industries are located in or near the cities.

Question 100.
Where the most manufacturing units were located in the pre-independence period? What were the results?

1. In the pre-independence period, the manufacturing units were located in places keeping in view the overseas trade. These places were Mumbai, Kolkata and Chennai.
2. **Result :**
   1. The result of locating the manufacturing industries at Mumbai, Kolkata and Chennai and other places was the emergence of certain pockets of industrially developed urban centers surrounded by a huge agricultural rural hinterland.
   2. First cotton textile mill was set up at Mumbai in 1854.
   3. First jute mill was established at Rishra near Kolkata in 1859.

Question 101.
Classify industries on the basis of source of raw material. How are they different from each other ?

Answer:

(1) Industries on the basis of source of raw material are classified as given below :

- Agro-based e., cotton, woolen, jute, silk, textile, rubber, sugar, tea, coffee, edible oil.
- Mineral based e., iron and steel, cement, aluminium, machine tools and petrochemicals.

Agro-based industries	Mineral based industries
(1) These are not capital intensive and do not need large investment e.g., dairy products.	(1) These are capital intensive industries as these involve large investments.
(2) Agro-based industries use plant and animal based products as their raw material. These are based on agricultural raw material.	(2) These industries use any kind of mineral such as iron ore, aluminium. Example is iron and steel industry and chemical industry.

(3) Cotton textiles, dairy products are example of agro-based industries.	(3) These industries use raw material for the manufacture of a number of other products such as heavy machinery, building material and railway coaches.

Question 102.
Classify industries on the basis of their main role. How do they differ from each other ?
Answer:

1. The industries on the basis of their role are classified into basic industries and consumer industries.
2. **The difference between the two are as given below :**

Basic Industries	**Mineral based industries**
(1) Basic industries produce primary raw materials for factories to work for instance steel and iron industries.	(1) These are capital intensive industries as these involve large investments.
(2) Basic industries do not depend on other industries to exist. Their raw material is not the output of another industry but rather their raw material is the stuff of nature itself.	(2) These industries use any kind of mineral such as iron ore, aluminium. Example is iron and steel industry and chemical industry.
(3) The basic industries are iron and steel, copper smelting etc.	(3) These industries use raw material for the manufacture of a number of other products such as heavy machinery, building material and railway coaches.

Question 103.
How industries are classified on the basis of ownership ? Explain.
Answer:
(1) Industries are classified on the basis of ownership into various categories as mentioned below :

1. Public sector
2. Private sector
3. Joint sector
4. Cooperative sector.

(2) These are explained below :

1. **Public sector :** These are owned and operated by the government agencies. Examples are BHEL, SAIL etc.
2. **Private sector :** These industries are owned and operated by individuals or a group of individuals. Their main object is to earn profit. Examples are TISCO, Bajaj Auto Ltd., Dabur Industries.
3. **Joint sector :** These industries are jointly run by the state and individual or a group of individuals. Examples Oil India Ltd. which is jointly owned by private and pubic sector.
4. **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.

Question 104.
Classify industries on the basis of capital investment. How are they different from one another ? Explain with examples.
Answer:

1. On the basis of capital investment, industries are classified into small scale and large scale industry.
2. **Small scale and large scale industries differ from each other as mentioned below :**

Small scale industry	Large scale industry
(1) A small scale industry is that in which maximum investment is ? one crore.	(1) In large scale industry the investment is more than X one crore.
(2) These industries employ less number of persons.	(2) These industries employ a large number of persons.
(3) Most of the work is done by man power, small machines and tools.	(3) Most of the work is done by machines.
(4) Raw material used are less and therefore, production is also less. These are generally more labour intensive.	(4) The production is on large scale as the raw materials used is more.

Question 105.
Classify industry on the basis of the bulk and weight of raw material and finished goods.
Answer:
On the basis of bulk and weight of raw material and finished goods the industries are classified into heavy and light industries.

1. Heavy industries are such as iron and steel.
2. Light industries that use light raw materials and produce light goods such as electrical industries.

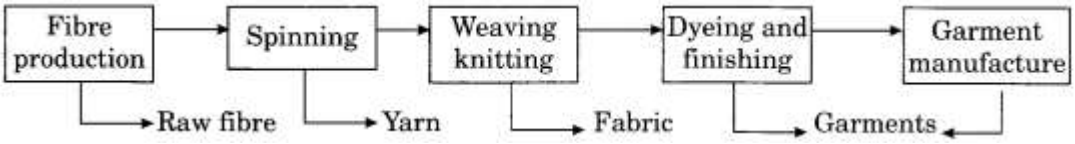
Question 106.
"The textile industry is the only industry in the country which is self reliant and complete in the value chain." Justify the statement.

Or

"The textile industry occupies unique position in the Indian economy." Explain with examples.
Answer:
The textile industry occupies unique position in the Indian economy due to the facts mentioned below :

1. It contributes 14 per cent to industrial production.
2. It generates employment for 35 million persons.
3. It earns foreign exchange which is 24.6 per cent of the total earnings.
4. It contributes 4 per cent towards GDP.
5. It is self-reliant and complete in the value chain e., raw material to the highest value added products as shown in figure given below :

Figure showing value addition in the textile industry :



From above it is clear that value at each step is added in the textile industry and one has to go step by step.

Question 107.
Describe the condition of cotton textile industry in India before and after independence.
Answer:
(1) Before independence :

1. In ancient India and even during the British rule our textiles were produced with hand spinning and handloom weaving techniques.
2. India remained the world's main producer of cotton textiles.
3. Indian textiles were of top quality and other countries could not compete with it.
4. There was great demand for Indian textiles and India had a substantial export trade to Britain as well.

(2) During British period after 18th century textile industry suffered a set back due to coming of Manchester goods in India. The Indian weavers could not compete due to various reasons.
(3) **At present the condition of cotton textile industry in India is as mentioned below :**

1. There are 1600 cotton and human made fibre textile mills in the country.
2. About 80 per cent are in the private sector and the rest in public and cooperative sectors.
3. There are thousands of small factories with four to ten looms.
4. In the early years, cotton textile industry was concentrated in the cotton growing belt of Maharashtra and Gujarat due to availability of raw cotton, market, transport, labour and port facilities. But now spinning is centralised in Maharashtra, Gujarat and Tamil Nadu but weaving is highly decentralised to provide scope for incorporating traditional skills and designs of weaving in cotton, silk, zari and embroidery.
5. Cotton textiles industry is closely related to agriculture. It provides a living to farmers, cotton boll pluckers and workers engaged in ginning, spinning, weaving, dyeing, designing, packaging, tailoring and sewing.
6. It supports many other industries, such as, chemicals and dyes, mill stores, packaging materials and engineering works by creating various types of demands.
7. India has world class production in spinning, but weaving supplies low quality of fabric.
8. The handspun khadi provides large scale employment to weavers in their homes as a cottage industry.
9. India exports yam to Japan and cotton goods to USA, UK, Russia, France, East European countries, Nepal, Singapore, Sri Lanka and African countries.

Question 108.
Describe the production of fabric in India by various sectors. Why is it important for us to keep the mill sector loomage lower than the power loom and handloom.
Answer:
(1) The production of fabric in India by various sectors is as mentioned below :

Sector	Share of production	Loomage
Mills	G.OCUper cent	1.33 lakh
Powerloom	54.17 per cent	14 lakh
Handloom	23.00 per cent	NA

From above figure it is clear that 90 percent of the weaving, cutting and processing is in decentralised sector.

(2) It is important for us to keep the mill/sector loomage lower than power loom and handloom due to facts as mentioned below :

1. In our country many artisans and weavers work independently along with the familly on handloom and powerlooms.
2. Most of these people working on handlooms and power looms are poor. It is the only source of income for them.
3. If the mill production is increased to meet the demands of the people then these weavers and artisans will suffer as their sales will be affected.
4. Increase in mill production will lead largely to rural unemployment and decline in standard of living.
   Thus in order to provide more employment opportunities and regular income to these weavers, the loomage or the production of the mills must be kept lower than power loom and handloom.

Question 109.
Why is it important for us to improve our weaving sector instead of exporting yam in large quantities ?
Answer:
We need to make improvement in the weaving sector for the reasons as mentioned below :

1. Weaving machinery is old and needs to be upgraded to give more output.
2. Power supply to powerlooms is erratic and power needs to be available on continuous basis.
3. Weavers can directly supply cloth to garment manufacturers instead of garment makers importing the fabric.
4. This will also increase employment and incomes of the weavers.
5. Increasing the weaving capacity will increase the GDP of country and create opportunity for development of ancillary industries like dyeing, processing and printing of woven fabrics, production of stitched garments.
6. This could also mean reduction in imports of fabrics and ready made garments thus saving foreign exchange reserves and using it for other important products.

Question 110.
Explain why many of our spinners export cotton yam while apparel/garment manufacturers have to import fabric.
Answer:
India’s share in the world trade of cotton yarn accounts for one-fourth of the total trade. However, our trade in garments is only 4 per cent of the world’s total but in spite of these facts

many of our spinners export cotton yarn while apparel/garment manufacturers have to import fabric. The reasons for this state of affairs are as mentioned below :

1. The weaving, knitting and processing units cannot use much of the high quality yam that we produce.
2. There are some large and modern factories but most of the production is done in fragmented small units. These units cater to the needs of loqal market. This mismatch is a major drawback for the industry.
3. **Production of good quality long staple cotton has increased but India still imports due to the following reasons :**
    1. Erratic power supply.
    2. Old machinery that needs upgradation.
    3. Low output of labour.
    4. Stiff competition with the synthetic fiber industry.

Question 111.
Describe the factors responsible for the location of most of the jute mills along the banks of the Hugli river in West Bengal.
Answer:
The factors for the location of most of the jute mills along the banks of the Hugli river in a narrow belt i.e., 98 km long and 3 km wide in West Bengal are as given below :

1. Proximity of the jute producing areas.
2. Inexpensive water transport.
3. Good network of railways, roadways and waterways to facilitate movement of raw material to the mills.
4. Abundant water for processing raw jute.
5. Cheap labour from West Bengal and adjoining states of Bihar, Orissa and Uttar Pradesh.
6. Availability of facilities such as banking, insurance and port facilities for export of jute goods at Kolkata which is a large urban center.

Question 112.
What are the challenges faced by the jute industry ? How the internal demand has been on the increase ? Which are the main markets for jute products ?
Answer:
(1) The challenges faced by the jute industry are as mentioned below :

1. Stiff competition in the international market from synthetic substitutes.
2. Competition with other countries like Bangladesh, Brazil, Philippines, Egypt and Thailand.

(2) However inspite of the challenges, there is increase in the internal demand due to factors as mentioned below :

1. The government has made mandatory use of jute packaging.
2. The growing global concern for environment friendly biodegradable materials has also increased the use of jute products.
3. 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.

4. The growing global concern for environment friendly biodegradable materials has also helped in use of more jute products.

(3) The main markets are USA, Canada, Russia, United Arab Republic, UK and Australia.

Question 113.
Give a brief description of sugar industry with special reference to its raw material, its nature, location of sugar mills and place in the world.
Answer:
(1) Raw material : The raw material, i.e., sugarcane, is bulky and in haulage, its sucrose content reduces. It is weight losing and perishable.
(2) Nature : This industry is seasonal in nature and, therefore, it is ideally suited to the cooperative sector because it needs large manual labour in various processes of cultivation and production of sugar and other products that can be provided by the cooperatives.
(3)

1. **Location of sugar mills :** There are about 460 sugar mills which are located in Uttar Pradesh, Bihar, Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh, Gujarat, Punjab, Haryana and Madhya Pradesh. Sixty per cent mills are in Uttar Pradesh and Bihar.
2. **In recent years there has been a tendency for the sugar mills to shift and concentrate in the southern and western states due to following reasons :**

    1. The sugarcane produced in the southern and western states has a higher sucrose content.
    2. The cooler climate also ensures a longer crushing season.
    3. The industry is ideally suited to the cooperative sector and this sector has been more successful in these states.
    4. **Place in the world :** India stands second as a producer of sugar. It, however, occupies the first place in the production of gurand
    5. The challenges before the sugar industry are its seasonal nature, old and inefficient methods of production, transport delay in reaching sugarcane to factories, need to maximise the use of baggase.

Question 114.
Describe iron and steel industry with reference to its features, uses and method of production.
Ans.
(1) Basic industry : Iron and steel industry is the basic industry because all the other industries depend on it for their machinery.
(2) Production and heavy industry:

- It is a heavy industry because all the raw materials as well as finished goods are heavy and bulky entailing heavy transportation costs.
- Iron ore, coking coal and limestone are required in the ratio of approximately 4:2:1. f (3) Some quantities of manganese are also required to harden the steel.
- **Uses:** Steel is used to manufacture a variety of engineering goods, construction material, defence, medical, telephonic, scientific equipment and consumer goods.

Question 115.
Which mineral's production and consumption is regarded as the index of a country's development? What is the rank of India among the world crude steel producers? Why is the per

capital consumption of steel so low in India?
Answer:
(1) Production and consumption of steel is often regarded as the index of a country's development.
(2)

- India produces 32.8 millon tons of steel.
- It ranks ninth among the world crude steel producers.
- It is the largest producer of sponge iron.

(3) In spite of large quantity of production of steel, per capital consumption per anum is only 32 kg. The reasons for the low consumption of steel are as mentioned below:

1. Lack of domestic market for steel in India.
2. Most of the steel is produced for international market.
3. High costs of steel because modern and cost effective technologies for steel production are not utilised due to lack of infrastructure.
4. Nearly % of Indian population live in villages which require very small quantities of steel.
5. To carry steel to some areas is difficult because of improper means of transport.
6. Low developed remote areas are not in need of steel.

Question 116.
Why the Chhotanagpur plateau region has the maximum concentration of iron and steel industries? Give reasons.
Answer:
The Chhotanagpur plateau region has the maximum concentration of iron and steel industries due to the following reasons :

- Low cost of iron.
- High grade raw materials are available in proximity.
- Cheap labour is available.
- There is vast growth potential in the home market.

Question 117.
Which are the factors responsible for not performing to our full potential? What is its present position?
Answer:
(1) We are not able to perform to our full potential energy due to the reasons as mentioned below :

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

(2) The present position is as mentioned below:

- The overall production of steel is sufficient to meet our domestic demand.

- Liberalisation and Foreign Direct Investment have given a boost to the industry with the efforts of private entrepreneurs.
- There is need to allocate resources for research and development to produce steel more competitively.

Question 118.
Write a brief note on Aluminium smelting industry in India.
Answer:
(1) Qualities : It is light, resistant to corrosion, a good conductor of heat and malleable. It becomes strong when it is mixed with other metals.
(2) Uses: It is used to manufacture aircraft, utensils and wires. It is also used as a substitute of steel, copper, zinc and lead in a number of industries.
(3)Position of Aluminum:

1. Aluminium smelting is the second important metallurgical industry in India. There are eight aluminium smelting plants in India. These are located in Orissa (Nalco and Balco), West Bengal, Kerala, Uttar Pradesh, Chhattisgarh, Maharashtra and Tamil Nadu.
2. In 2004, India produced over 600 million tons of aluminium.
3. Factors for the location of the industry are regular supply of electricity and an assured source of raw materials e., bauxite at the minimum cost.

Question 119.
Describe the main features of chemical industry in India.
Ans.
The main features are as follows:

1. It is fast growing and diversifying industry.
2. Its contribution to GDP is approximately 3 per cent.
3. It is the third largest in Asia and twelfth in the world in size.
4. It has both large and small scale manufacturing units.
5. Rapid growth in both organic and inorganic sectors.
6. It has its own consumer market because basic chemicals are used for producing other chemicals that are used for industrial application, agriculture or directly for consumer markets.
7. Organic chemicals include petrochemicals, which are used for manufacturing of synthetic fibres, synthetic rubber, plastics, dye stuffs, drugs and pharmaceuticals.
8. Organic chemical plants are located near oil refineries and petrochemical plants because petrochemicals are heavy organic chemicals which are difficult to transport to other places.
9. The inorganic chemical industry manufactures fertilisers, plastics, paints, adhesives, soaps, detergents and paper etc. These products are used by people all over the country and can [1] be produced by small inorganic chemical industries spread all over the country.

Question 120.
Write a short note on the main features of the fertiliser industry in India.
Answer:
Main features are :

1. It produces nitrogenous fertilisers (mainly urea), phosphatic fertilisers and ammonium phosphate (DAP) and complex fertilisers i.e., combination of nitrogen (N), phosphate (P) | and potash (K).
2. India is the third largest producer of nitrogenous fertilisers.
3. **Number of fertiliser units in the country are as follows :**

    1. Nitrogenous and complex nitrogenous fertiliser — 57
    2. Urea – 29
    3. Ammonium sulphate – 09
    4. Single superphosphate – 68

4. There are 10 public sector undertakings and one in cooperative sector at Hazira in Gujarat under the Fertiliser Corporation of India.
5. Main fertiliser producing states are Gujarat, Tamil Nadu, Uttar Pradesh, Punjab, and Kerala where half of the fertiliser is produced. Other states are Andhra Pradesh, Orissa, Rajasthan, Bihar, Maharashtra, Assam, West Bengal, Goa, Delhi, Madhya Pradesh and Karnataka.

Question 120.
Describe the cement industry in India with special reference to the uses of element and its expansion.
Answer:
The main facts about the cement industry in India are as given below :

1. Uses: Cement is used for construction of buildings, factories, dams, airports, roads and other commercial complexes.
2. Raw materials: Bulky and heavy raw materials like limestone, silica, alumina and gypsum are used in it. Besides this, it needs coal, electric power and rail transportation.
3. **Location of plants :**
    1. First cement plant was set up in Chennai in 1904. However,decontrol of price and distribution and policy reforms since 1989 led to its expansion.
    2. There are 128 large plants and 332 mini-cement plants in the country.
    3. Some plants have been strategically located in Gujarat. These plants have suitable access to the market in the Gulf countries.
    4. Present position of the industry: Good quality of cement of India has great demand in Last Asia, Middle East, Africa and South Asia as well as in the country. At present the cement industry is doing well in terms of production as well as export. Efforts are being made
    togenerate adequate domestic demand and supply in order to sustain the industry.

Question 121.
What are the advantages of automobiles? What are the factors responsible or the healthy growth of automobile industry? Which are the main centers of automobile industry?
Answer:

1. **Advantages:** Automobiles provide vehicles for quick transport of good services and passengers.
2. Liberalisation, foreign direct investment, new and contemporary models are factors responsible for the healthy growth of the industry including passenger cars, two and three- wheelers.

3. **Manufacturing:** Trucks, buses, cars, motor cycles, scooters, three-wheelers and multi-utility vehicles are manufactured in India at various centers.
4. **Location of industry:** Around Delhi, Gurgaon, Mumbai, Pune, Chennai, Kolkata, Lucknow, Indore, Hyderabad, Jamshedpur and Bangalore.
5. **Number of manufacturers : At present, the number of manufacturers are as given below :**
    1. Passenger cars and multi-utility vehicles – 15
    2. Commercial vehicles – 09
    3. Two and three-wheelers – 14

Question 122.
Name the electronic capital of India. Write characteristics of IT and electronic industry of India.
Answer:

1. Bangalore is the electronic capital of India.
2. **The main characteristics of the electronic industry are as mentioned below :**
    1. **Products of electronics industry:** Transistor sets, television, telephones, cellular telecom, pagers, radars, computers and many other equipment required by the telecommunication industry.
    2. **Centers:** Bangalore, Mumbai, Delhi, Hyderabad, Pune, Chennai, Kolkata, Lucknow and Coimbatore.
    3. **Software Technology Parks:** 18 parks which provide single window service and high data communication facility to software experts.
    4. **Employment:** Up to 31st March, 2005, the IT industry employed over one million persons. It is likely to increase to 8 million in next three to four years. 30 per cent employees are women in this industry.
    5. **Foreign exchange:** It earns lot of foreign exchange due to fast growing Business Processes Outsourcing (BPO) sector.

Question 123.
Describe the method of treatment of industrial effluents.
Answer:
Treatment of industrial effluents can be done in three phases as given below :

- Primary treatment by mechanical means. This involves screening, grinding, flocculation and sedimentation.
- Secondary treatment by biological process.
- Tertiary treatment by biological, chemical and physical processes. This involves recycling of wastewater.

Question 124.
Describe the ways by which the NTPC has preserved the natural environment and other resources like water.
Answer:
NTPC is a major power providing corporation in India. It has ISO certification for EMS (Environment Management System) 14001. The Corporation has taken following steps for preserving the natural environment and resources like water:

- Optimum utilisation of equipment adopting latest techniques and upgrading existing equipment.

- Minimising waste generation by maximising ash utilisation.
- Providing 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.

  Thus, by taking above steps, the NTPC has shown the way to the people for preserving the natural environment.

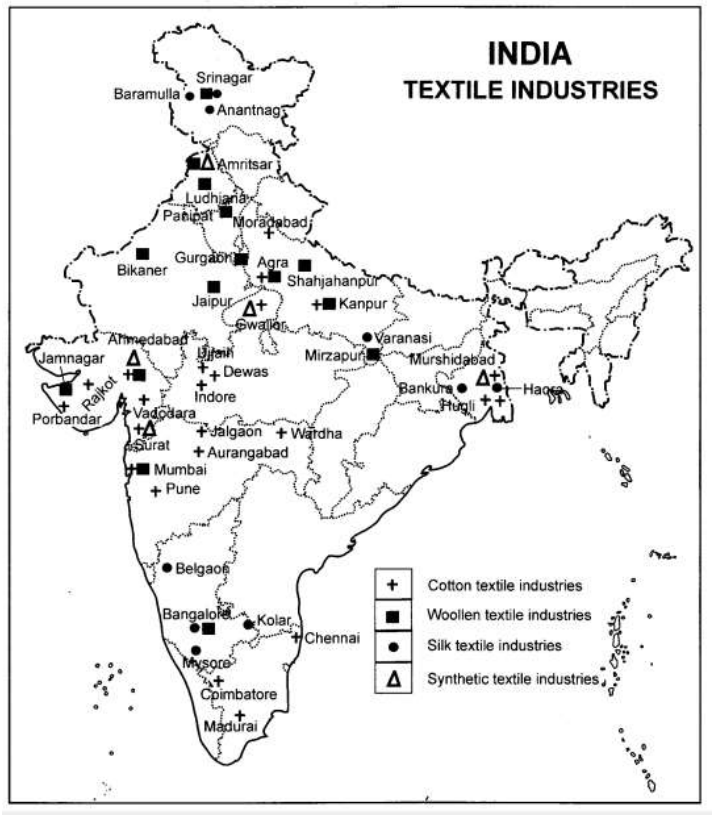
MAP QUESTIONS

Question 1.
On the outline map of India, show major places of following industries:

1. Cotton textile
2. Woollen textile
3. Silk textile
4. Synthetic textile.

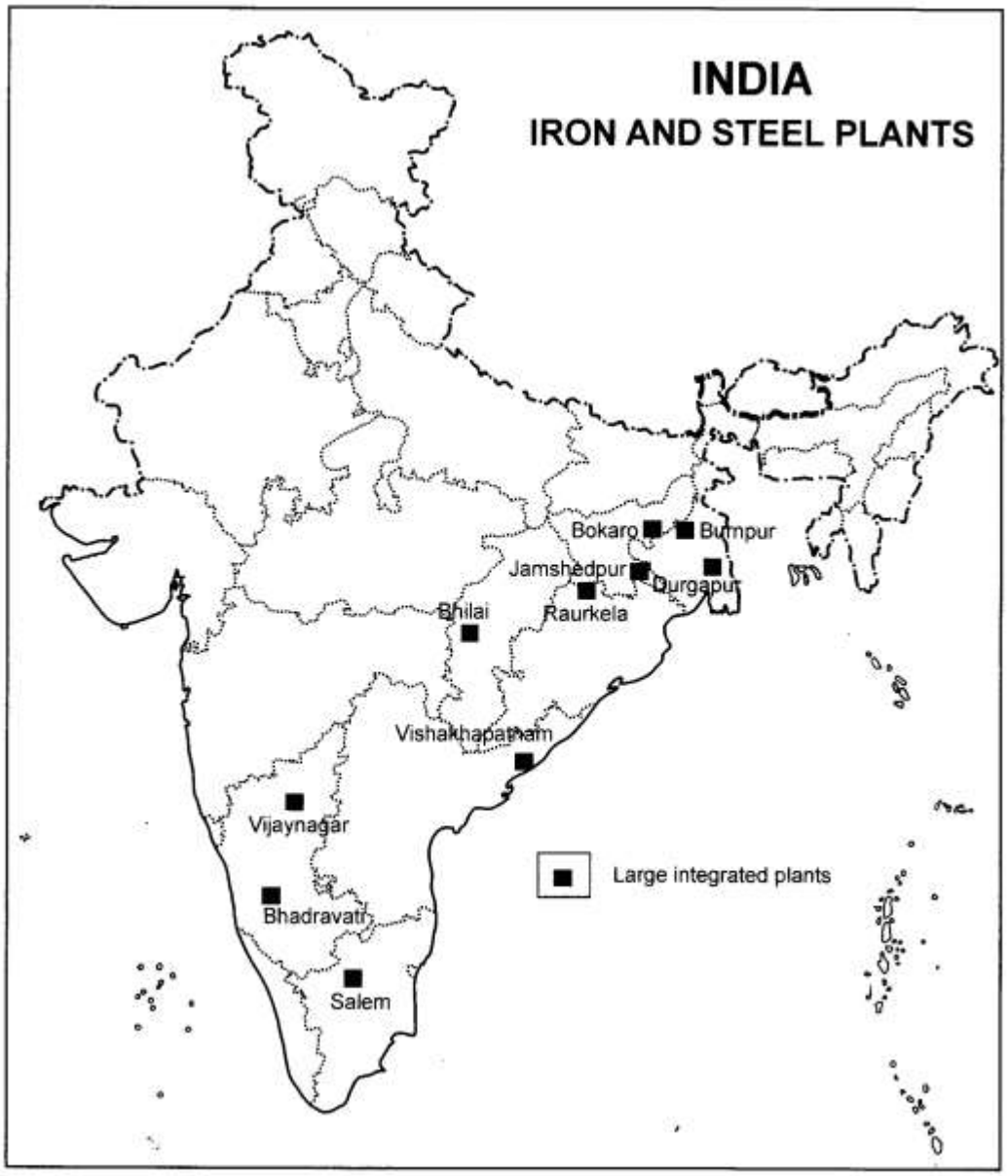
Answer:
Major places of above industries are given below :

1. **Cotton Textile:** Ahmedabad, Rajkot, Porbandar, Vadodara, Mumbai, Pune, Chennai, Coimbatore, Madurai, Moradabad, Agra, Kanpur, Murshidabad, Haora and Hugli.
2. **Woollen Textile:** Ahmedabad, Jamnagar, Mumbai, Bangalore, Bikaner, Panipat, Gurgaon, Jaipur, Shahjahanpur, Gwalior, Kanpur, Srinagar, Amritsar and Ludhiana.
3. **Silk Textile:** Kolar, Bangalore, Mysore, Belgaon, Murshidabad, Varanasi, Baramulla, Srinagar and Anantnag.
4. **Synthetic Textile :** Amritsar, Gwalior, Ahmedabad, Surat, and Murshidabad.



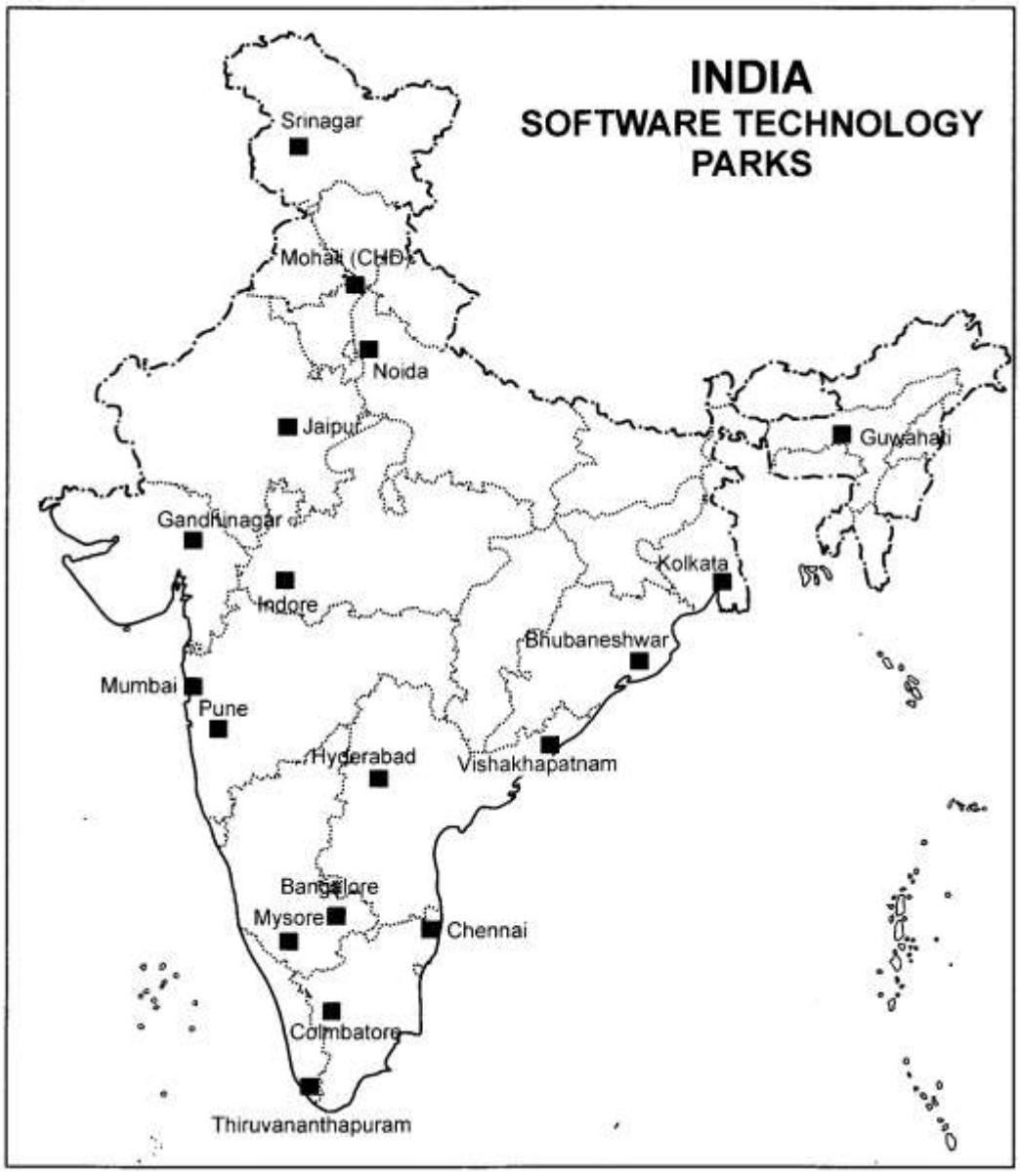
Question 2.
On the outline map of India show the major iron and steel plants.
Answer:
The major iron and steel plants are shown as given below :

1. Bokaro
2. Jamshedpur
3. Raurkela
4. Bhilai
5. Durgapur
6. Vijaynagar
7. Bhadravati
8. Salem
9. Vishakhapatnam
10. Burnpur



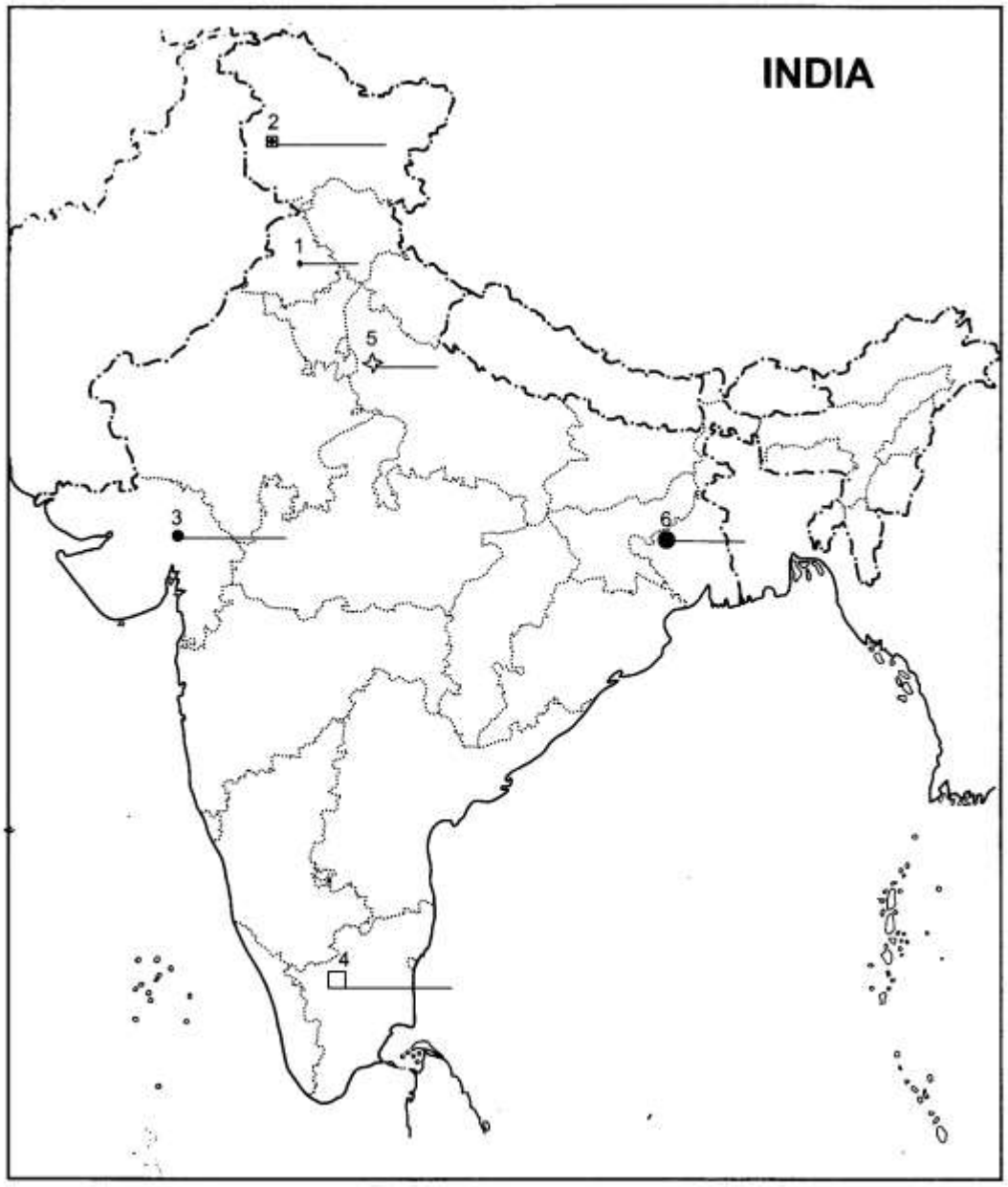
Question 3.
On the outline map of India show the major Software Technology Parks.
Answer:
There are 18 Software Technology Parks that provide single window service and high data

communication facility to software experts. They are at Mohali, Srinagar, Noida, Jaipur, Gandhinagar, Indore, Mumbai, Pune, Mysore, Bangalore, Thiruvananthapuram, Chennai, Coimbatore, Hyderabad, Vishakhapatnam, Bhubaneshwar, Kolkata and Guwahati.See map given below :



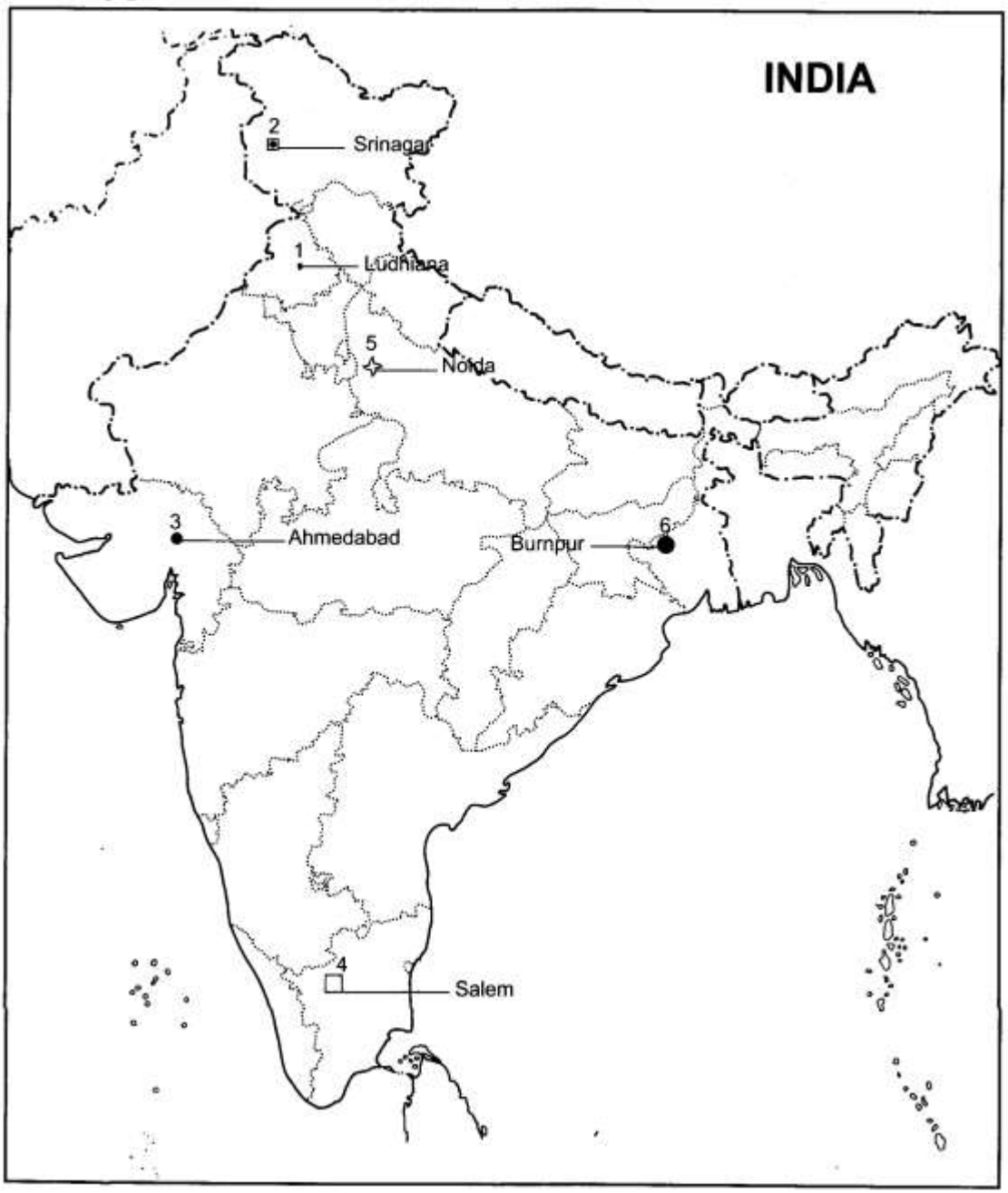
Question 4.
Six features with serial numbers (1) to (6) are marked in the given political outline map of India. Identify these features with the help of the following information and write their correct names on the lines marked in the map.

- Woollen textile
- Silk textile
- Cotton textile
- Iron and steel plant
- Software technology park
- Iron and steel plant.



Answer:

1. Woollen textile — Ludhiana
2. Silk textile — Srinagar
3. Cotton textile — Ahmedabad
4. Iron and steel plant — Salem
5. Software technology park — Noida
6. Iron and steel plant — Bumpur
   See map given below:


INDIA
2
Srinagar
1
Ludhiana
5
Noida
3
Ahmedabad
Burnpur
6
4
Salem