

NCERT Solutions For Class 12 Geography

Chapter 6 Secondary Activities

1. Which one of the following statements is wrong?
 - (a) Cheap water transport has facilitated the jute mill industry along the Hugli.
 - (b) Sugar, cotton textiles and vegetable oils are footloose industries.
 - (c) The development of hydro-electricity and petroleum reduced, to a great extent, the importance of coal energy as a locational factor for industry.
 - (d) Port towns in India have attracted industries.
1. (b) Sugar, cotton textiles and vegetable oils are footloose industries.
2. In which one of the following types of economy are the factors of production owned individually?
 - (a) Capitalist.
 - (b) Mixed.
 - (c) Socialist.
 - (d) None.
2. (a) Capitalist.
3. Which one of the following types of industries produces raw materials for other industries?
 - (a) Cottage industries.
 - (b) Small-scale industries.
 - (c) Basic industries.
 - (d) Footloose industries.
3. (c) Basic industries.
4. Which one of the following pairs is correctly matched?
 - (a) Automobile industry ... Los Angeles
 - (b) Ship building industry... Lusaka
 - (c) Air craft industry ... Florence
 - (d) Iron and steel industry ... Pittsburgh
4. (d) Iron and steel industry ... Pittsburgh
5. High-Tech industry:
5. This is the latest generation of manufacturing industries. It merges the application of intensive research and development into the manufacturing of products of an advanced

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scientific and engineering character. Professional (white collar) workers make up a large share of the total workforce and outnumber the actual (blue collar workers).

6. Manufacturing:

6. Manufacturing adds value to natural resources by transforming raw materials into finished goods of higher value for sale in local or distant markets. It involves a full array of production from handicrafts to moulding iron and steel and stamping out plastic toys to assembling delicate computer components or space vehicles.

7. Footloose industry:

7. Foot loose industries can be located in a wide variety of places. They are not dependent on any specific raw-material, weight losing or otherwise. They largely depend on component parts which can be obtained anywhere.

8. Differentiate between primary and secondary activities.

8.

	Primary Activities		Secondary Activities
(i)	Those activities, which depend directly on nature for extraction of resources.	(i)	They convert raw material obtained from primary activities into finished goods of higher value.
(ii)	It includes activities like agriculture, mining, fishing, etc.	(ii)	It concerned with manufacturing, processing and construction (infrastructure) industries.
(iii)	They are pre-dominant in under developed/developing countries.	(iii)	They are dominant in developed countries.
(iv)	They earn low value and some need to be processed by secondary activities for sale in market.	(iv)	Produce goods of higher value. They are dependent on primary activities for procurement of raw material.
(v)	As economies develop, the share of primary activities declines.	(v)	As economies develop, the share of secondary activities increases.
(vi)	They form the basis of village economies.	(vi)	Secondary activities along with tertiary, quaternary and quinary activities form the basis of urban centers.

9. Discuss the major trends of modern industrial activities especially in the developed countries of the world.

9. Major concentrations of modern manufacturing have flourished in a few numbers of places. These cover less than 10 per cent of the world's land area. These nations have become the centres of economic and political power. However, in terms of the total area covered, manufacturing sites are much less conspicuous and concentrated on much smaller areas than that of agriculture due to greater intensity, of processes. For

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example, 2.5 sq km of the American corn belt usually includes about four large farms employing about 10-20 workers supporting 50-100 persons. But this same area could contain several large integrated factories and employ thousands of workers.

Following are the characteristics of the modern industries in the modern world:

Mechanisation: Mechanisation refers to using gadgets which accomplish tasks.

Automation (without aid of human thinking during the manufacturing process) is the advanced stage of mechanisation.

Technological Innovation: Technological innovations through research and development strategy are an important aspect of modern manufacturing for quality control, eliminating waste and inefficiency, and combating pollution.

Organisational Structure and Stratification:

Modern manufacturing is characterized by:

- a complex machine technology extreme specialisation and division of labour for producing more goods with less effort, and low costs.
- vast capital
- large organisations
- executive bureaucracy.

Development of high-tech industries and technopoles: High technology, or simply high-tech, is the latest generation of manufacturing activities. It is best understood as the application of intensive research and development (R and D) efforts leading to the manufacture of products of an advanced scientific and engineering character. Robotics on the assembly line, computer -aided design (CAD) and manufacturing, electronic controls of smelting and refining processes, and the constant development of new chemical and pharmaceutical products are notable examples of a high-tech industry.

High-tech industries which are regionally concentrated, self-sustained and highly specialised are called technopoles. The Silicon Valley near San Francisco and Silicon Forest near Seattle are examples of technopoles.

Offshoring: Most of the industries in the developed countries are seeking and establishing their back-office operations in third world countries where the work force is available in abundance at a cheaper rate. The government in the countries where they set up their operations is also eager to accommodate them with relaxed policies so as to generate employment.

Agglomeration economies: The present times also happen to be a high for agglomeration economies and industrial hubs where different related industries localize themselves close to each other in order to maximize profits and reduce overheads.

10. Explain why high-tech industries in many countries are being attracted to the peripheral areas of major metropolitan centers?
10. High technology, or simply high tech, is the latest generation of manufacturing activities. Professional workers make up for a large number of the total workforce.

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These professional skilled workers are located in urban areas, and due to high rent in the central areas of the cities, they situate themselves in the periphery.

The industry is also situated in the periphery because of the low rent, and also because of the closeness to the urban centres which provide them with availability of the workers. Neatly spaced, low, modern, dispersed, office-plant-lab buildings rather than massive assembly structures, factories and storage areas mark the high-tech industrial landscape.

This requires large areas for massive set up which due to increased population in major metropolitan cities is not available. Hence, these industries are set up near the urban centers where adequate space is available. Also, their situation near urban places helps them to gain access to the-urban market, and also to tap the skilled workforce that is available therein due to availability of educational institutes.

Example in case would be Gurgaon in Haryana, which has grown into one of the greatest high-tech hubs near Delhi.

11. Africa has immense natural resources and yet it is industrially the most backward continent. Comment.

11. Although Africa has natural resources in abundance in terms of its land resources, its forest and water resources, its mineral and energy resources, the most important component to transfer these into usable form- the human resource, is not well developed. All the characteristics that mark an industrially developed nation are lacking. The following discussion would make it amply clear why Africa remains industrially backward.

- Specialization of skills/methods of production: African industries still use primitive methods of production, which makes its yield low. Lack of adequate training and opportunities forces most of the African state to have low skilled human capital and most of the workforce remains to be unskilled.
- Mechanization and Technological innovation: Low level of mechanization leads to a cut in the production level and as the industries in Africa are generally not connected with the other competing industries in the world, sharing of technology does not take place in a greater scale and therefore innovation, which is the important for the progress of industries, does not take place.
- Organizational structure and stratification: A high level of organization and an efficient division of labour is essential for the thriving of giant enterprises. They lack in the said continent.
- Access to market and raw material: For basic industries, it is important that the raw materials are easily accessible to the factories of production, and the finished goods should find easy access to markets. This however, lacks because of the lack of good transport network, effective communication facilities and international markets.

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- Access to labour supply: Although Africa is quite populous and blue-collar workers are available aplenty, skilled labour is in a shortage, which makes industries suffer further on managerial and technological fronts.
- Government policy: Because of the political turmoil that go on in most of the African nations, a long term and healthy government policy towards the progress of industries is absent, thus making it a push factor for foreign multinationals to invest in the said areas. This in turn acts as a repelling factor for the formation of agglomeration economies, which are vital for the sharing of technological innovation between different industries.
- Transportation facilities: Development of modern industries requires well transport linkage, so that agglomeration economies can be created. Also, it is necessity for development of trading network both at national as well as international level. Africa lacks development of adequate network of highways, railways and airway linkage.

12. What is the advanced stage of mechanization?

12. Automation is the advanced stage of mechanization.

13. Which is a vital factor for the industry to be located closer to the raw material?

13. An industry is a geographically located manufacturing unit maintaining books of accounts and records under a management system. As the term industry is comprehensive, it is also used as synonymous with 'manufacturing'. When one uses terms like 'steel industry' and 'chemical industry' one thinks of factories and processes. Based on output there are two types of industries:

14. Classify industry based on ownership.

14. Based on ownership, industries are classified as:

- Public Sector Industries are owned and managed by government. In India, there were a number of Public Sector Undertakings (PSUs). Socialist countries have many state-owned industries. Mixed economies have both Public and Private sector enterprises.
- Private Sector Industries are owned by individual investors. These are managed by private organisations. In capitalist countries, industries are generally owned privately.
- Joint Sector Industries are managed by joint stock companies or sometimes the private and public sectors together establish and manage the industries.

15. What are the characteristics of traditional large scale industrial region?

15. Traditional large scale industrial regions are based on heavy industry, often located near coal-fields and engaged in metal smelting, heavy engineering, chemical manufacture or textile production. These industries are now known as smokestack industries. Traditional industrial regions can be recognized by:

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- High proportion of employment in manufacturing industry. High-density housing, often of inferior type, and poor services. Unattractive environment, for example, pollution, waste heaps, and so on.
 - Problems of unemployment, emigration and derelict land areas caused by closure of factories because of a worldwide fall in demand.
- 16.** Discuss the major trends of modern industrial activities especially in the developed countries of the world.
- 16.** Traditional large-scale industries were based on heavy industry, often located near coal-fields and engaged in metal smelting, heavy engineering, chemical manufacture or textile production. These industries are now known as smokestack industries. With modernization, there has been changes in industrial sector which have led to the decay of some areas, and there are problems of industrial waste and pollution. The future prosperity of these traditional areas has shifted from their traditional activities to high technology, or simply high-tech, which is the latest generation of manufacturing activities. It is best understood as the application of intensive research and development (R and D) efforts leading to the manufacture of products of an advanced scientific and engineering character.
- Robotics on the assembly line, computer- aided design (CAD) and manufacturing, electronic controls of smelting and refining processes, and the constant development of new chemical and pharmaceutical products are notable examples of a high-tech industry. Neatly spaced, low, modem, dispersed, office-plant-lab buildings rather than massive assembly structures, factories and storage areas mark the high-tech industrial landscape. The Silicon Valley near San Francisco and Silicon Forest near Seattle are examples of technopoles. The traditional industrial regions have shifted their focus from traditional large scale industries to assembly plants (footloose industries), new chemical plants, universities, out of town shopping centres etc.
- 17.** Give a brief account on the following:
- (a) Iron and Steel industry
 - (b) Cotton Textile Industry
- 17.** (a) The iron and steel industry:
- It forms the base of all other industries and, therefore, it is called a basic industry. It is basic because it provides raw material for other industries such as machine tools used for further production. It may also be called a heavy industry because it uses large quantities of bulky raw materials and its products are also heavy. Iron is extracted from iron ore by smelting in a blast furnace with carbon (coke) and limestone. The molten iron is cooled and moulded to form pig iron which is used for converting into steel by adding strengthening materials like manganese. The large integrated steel industry is traditionally located close to the sources of raw materials – iron ore, coal, manganese

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and limestone – or at places where these could be easily brought, e.g., near ports. But in mini steel mills access to markets is more important than inputs.

Distribution: This industry is one of the most complex and capital-intensive industries and is concentrated in the advanced countries of North America, Europe and Asia. In U.S.A, most of the production comes from the north

Appalachian region (Pittsburgh), Great Lake region. The industry has also moved towards the southern state of Alabama. Pittsburg area is now losing ground. It has now become the “rust bowl” of U.S.A. In Europe, U.K., Germany, France, Belgium, Luxembourg, the Netherlands and Russia are the leading producers. In Asia, the important centres include Nagasaki and Tokyo-Yokohama in Japan; Shanghai, Tienstin and Wuhan in China; and Jamshedpur, Kulti-Bumpur, Durgapur, Rourkela, Bhilai, Bokaro, Salem, Visakhapatnam and Bhadravati in India centres.

(b) Cotton textile industry:

Cotton textile industry has three sub-sectors i.e., handloom, powerloom and mill sectors. Handloom sector is labour-intensive and provides employment to semi-skilled workers. It requires small capital investment. This sector involves spinning, weaving and finishing of the fabrics. The powerloom sector introduces machines and becomes less labour intensive and the volume of production increases. Cotton textile mill sector is highly capital intensive and produces fine clothes in bulk. Cotton textile manufacturing requires good quality cotton as raw material. India, China, U.S.A, Pakistan, Uzbekistan, Egypt produces more than half of the world's raw cotton. The U.K, NW European countries and Japan also produce cotton textile made from imported yam. Europe alone accounts for nearly half of the world's cotton imports.

The industry has to face very stiff competition with synthetic fibres hence it has now shown a declining trend in many countries. With the scientific advancement and technological improvements, the structure of industries changes. For example, Germany recorded constant growth in cotton textile industry since Second World War till the seventies but now it has declined. It has shifted to less developed countries where labour costs are low.

18. Define manufacturing. List the characteristics of modern large-scale manufacturing.
18. Manufacturing literally means “to make by hand”. However, now it includes goods ‘made by machines. It is essentially a process which involves transforming raw materials into finished goods of higher value for sale in local or distant markets. Modern large-scale manufacturing has the following characteristics: Specialization of Skills/Methods of Production: Under the ‘craft’ method factories produce only a few pieces which are made-to-order. So, the costs are high. On the other hand, mass production involves production of large quantities of standardized parts by each worker performing only one task repeatedly.

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Mechanization: Mechanization refers to using gadgets which accomplish tasks. **Automation** (without aid of human thinking during the manufacturing process) is the advanced stage of mechanization. **Technological Innovation:** Technological innovations through research and development strategy are an important aspect of modern manufacturing for quality control, eliminating waste and inefficiency, and combating pollution. **Organisational Structure and Stratification:** Modern manufacturing is characterized by:

- a complex machine technology
- extreme specialization and division of labour for producing more goods with less effort, and low costs
- vast capital
- large organisations
- executive bureaucracy.

19. Describe the factors that affect the location of industries.

19. Major concentrations of modern manufacturing have flourished in a few numbers of places. These cover less than 10 per cent of the world's land area. These nations have become the centres of economic and political power. Industries maximise profits by reducing costs. Therefore, industries should be located at points where the production costs are minimum. Some of the factors influencing industrial locations are as under:
Access to Market: The existence of a market for manufactured goods is the most important factor in the location of industries. 'Market' means people who have a demand for these goods and also have the purchasing power (ability to purchase) to be able to purchase from the sellers at a place. Remote areas inhabited by a few people offer small markets. The developed regions of Europe, North America, Japan and Australia provide large global markets as the purchasing power of the people is very high. The densely populated regions of South and South-east Asia also provide large markets.

Access to Raw Material: Raw material used by industries should be cheap and easy to transport. Industries based on cheap, bulky and weight-losing material (ores) are located close to the sources of raw material such as steel, sugar, and cement industries. **Perishability** is a vital factor for the industry to be located closer to the source of the raw material. Agro-processing and dairy products are processed close to the sources of farm produce or milk supply respectively. **Access to Labour Supply:** Labour supply is an important factor in the location of industries. Some types of manufacturing still require skilled labour. Increasing mechanization, automation and flexibility of industrial processes have reduced the dependence of industry upon the labours. **Access to Sources of Energy:** Industries which use more power are located close to the source of the energy supply such as the aluminium industry. Earlier coal was the main source of

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energy, today hydroelectricity and petroleum are also important sources of energy for many industries.

Access to Transportation and Communication Facilities: Speedy and efficient transport facilities to carry raw materials to the factory and to move finished goods to the market are essential for the development of industries. The cost of transport plays an important role in the location of industrial units. Communication is also an important need for industries for the exchange and management of information. **Government Policy:** Governments adopt 'regional policies' to promote 'balanced' economic development and hence set up industries in particular areas.

Access to Agglomeration Economies/ Links between Industries: Many industries benefit from nearness to a leader-industry and other industries. These benefits are termed as agglomeration economies. These factors operate together to determine industrial location.

- 20.** Classify industry based on inputs. Ans. On the basis of the raw materials used, the industries are classified as:

- (a) agro-based
- (b) mineral based
- (c) chemical based
- (d) forest based and
- (e) animal based.

- 20.** (a) Agro based Industries:

Agro processing involves the processing of raw materials from the field and the farm into finished products for rural and urban markets. Major agro-processing industries are food processing, sugar, pickles, fruits juices, beverages (tea, coffee and cocoa), spices and oils fats and textiles (cotton, jute, silk), rubber, etc. Food and Agro processing include canning, producing cream, fruit processing and confectionary. While some preserving techniques, such as drying, fermenting and pickling, have been known since ancient times, these had limited applications to cater to the pre-industrial Revolution demands.

- (b) Mineral based Industries:

These industries use minerals as a raw material. Some industries use ferrous metallic minerals which contain ferrous (iron), such as iron and steel industries but some use non-ferrous metallic minerals, such as aluminium, copper and jewellery industries. Many industries use non-metallic minerals such as cement and pottery industries.

- (c) Chemical based Industries:

Such industries use natural chemical minerals, e.g., mineral-oil (petroleum) is used in petrochemical industry. Salts, sulphur and potash industries also use natural minerals. Chemical industries are also based on raw materials obtained from wood and coal. Synthetic fibre, plastic, etc. are other examples of chemical-based industries.

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(d) Forest based raw Material using Industries:

The forests provide many major and minor products which are used as raw material. Timber for furniture industry, wood, bamboo and grass for paper industry, lac for lac industries come from forests.

(e) Animal based Industries:

Leather for leather industry and wool for woolen textiles are obtained from animals. Besides, ivory is also obtained from elephant's tusks.

21. Give the characteristics of hightech industries.

21. High technology, or simply high-tech, is the latest generation of manufacturing activities. It is best understood as the application of intensive research and development (R and D) efforts leading to the manufacture of products of an advanced scientific and engineering character. Professional (white collar) workers make up a large share of the total workforce. These highly skilled specialists greatly outnumber the actual production (blue collar) workers.

Robotics on the assembly line, computer-aided design (CAD) and manufacturing, electronic controls of smelting and refining processes, and the constant development of new chemical and pharmaceutical products are notable examples of a high-tech industry. Neatly spaced, low, modern, dispersed, office-plant-lab buildings rather than massive assembly structures, factories and storage areas mark the high-tech industrial landscape. Planned business parks for high-tech start-ups have become part of regional and local development schemes.

High-tech industries which are regionally concentrated, self-sustained and highly specialized are called technopoles. The Silicon Valley near San Francisco and Silicon Forest near Seattle are examples of technopoles. Bangalore is known as Silicon Valley of India.

22. Distinguish between cottage industries and small-scale industries.

22.

	Cottage Industry		Small Scale Industries
(i)	It is the smallest manufacturing unit. Finished products may be for consumption in the same household or, for sale in local (village) markets, or, for barter.	(i)	Small scale manufacturing is distinguished from household industries by its production techniques and place of manufacture (a workshop outside the home/cottage of the producer).
(ii)	The artisans use local raw materials and simple tools to produce everyday goods in their homes with the help of their family members or part time labour.	(ii)	This type of manufacturing uses local raw material, simple power-driven machines and semi-skilled labour.

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(iii)	Some common everyday products produced in this sector of manufacturing include foodstuffs, fabrics, mats, containers tools, furniture, shoes, and figurines from wood lot and forest, shoes, thongs and other articles from leather; pottery and bricks from clays and stones. Goldsmiths make jewellery of gold, silver and bronze. Some artefacts and crafts are made out of bamboo, wood obtained locally from the forests.	(iii)	It provides employment and raises local purchasing power. Therefore, countries like India, China, Indonesia and Brazil, etc. have developed labour-intensive small-scale manufacturing in order to provide employment to their population.
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23. Distinguish between small scale & large-scale manufacturing industry.

23.

	Small Scale Industries		Large Scale Industries
(i)	Its manufacturing place (workshop) is outside the home/cottage of the producer.	(i)	Large scale industry is totally market oriented industry, involving large scale production and technological advanced methods of production of goods in large factory set up.
(ii)	It uses local raw material, simple power-driven machines and skilled labour.	(ii)	It involves a large market, various raw materials, enormous energy, specialized workers, advanced technology, assembly.
(iii)	Countries like India, China, Indonesia and Brazil, etc. have developed labour-intensive small-scale manufacturing in order to provide employment to their population.	(iii)	This kind of manufacturing developed in the last 200 years, in the United Kingdom, north-eastern U.S.A. and Europe.

24. Differentiate between Basic Industry and Consumer Goods industry.

24.

	Basic Industry		Consumer Goods Industry
(i)	Industries whose products are used to produce other goods by using them as raw materials are called basic industries.	(i)	Industries which produce goods for direct consumption are known as consumer goods industries.
(ii)	Iron and steel industry produces steel which is used by other industries as a raw material to produce machines.	(ii)	Tea, bread, soap and television which are used by consumers.

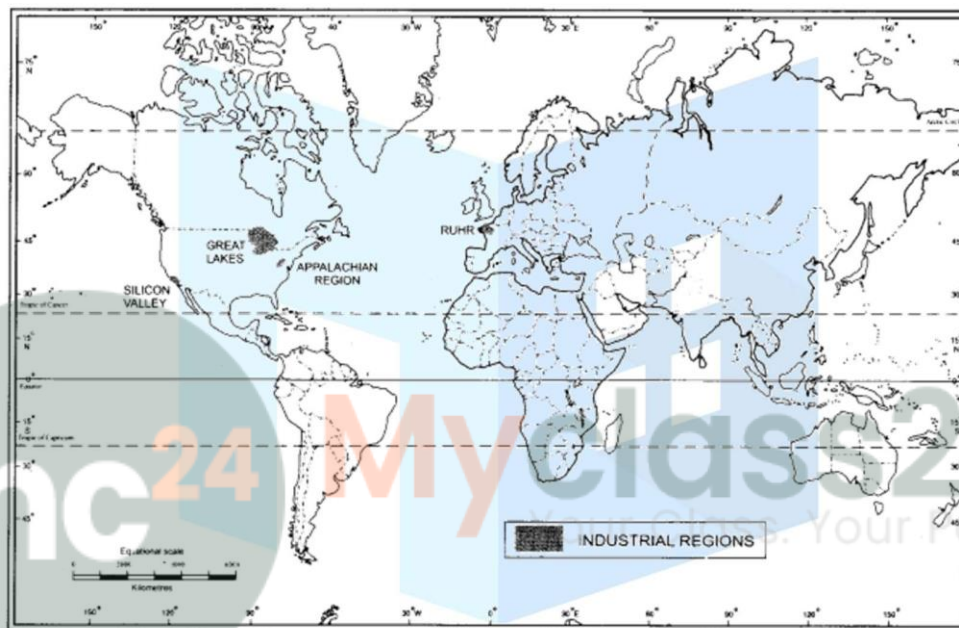
25. Differentiate between Private Sector Industry and Public Sector Industry.

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25.

	White Collar Worker		Blue Collar Worker
(i)	Those group of workers which is highly qualified and skilled and does mental work is called white collar worker.	(i)	Industries which produce goods for direct consumption are known as consumer goods industries.
(ii)	These workers enjoy high standard of living and better social status.	(ii)	They get relatively lesser wages.

26. Identify the industrial regions on the political map of the world.



26.

27. What is the importance of secondary activities in the world? (Delhi 2009)

27. The importance of secondary activities in the world is that it adds value to natural resources by transforming raw materials into valuable products.

28. Name any three sub-sections of cotton textile industry in the world. (Delhi 2009)

28. Two sub-sections of cotton textile industry in the world are Handloom and Power loom sectors & mill sectors.

29. Which is the leading steel producing region of Germany? (A.I. 2011)

29. The Ruhr region which is responsible for 80% of Germany's total steel production, is the leading steel producing region of Germany cottage industry.

30. What is a household industry? (CBSE 2011)

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30. It is the smallest manufacturing unit. The craftsmen used local raw materials and simple tools to produce goods in their homes for local market. Family members or part time labourers sometimes help.
31. Which sector of economy accounted for the highest percentage of India's total value of exports in 2003-2004? (CBSE 2011)
31. Industrial/manufacturing sector.
32. How has the 'New Ruhr' landscape emerged? (CBSE 2016)
32. Ruhr is based less on the products of coal and steel, for which it was initially famous, and more on the new industries like the -Opel car assembly plant, new chemical plants, universities. Out of- town shopping centres have appeared resulting in a 'New Ruhr' landscape.
33. What is a household industry?
33. It is the smallest manufacturing unit. The craftsmen used local raw materials and simple tools to produce goods in their homes for local market. Family members or part time labourers sometimes help.
34. Mention any two major problems of Ruhr-industrial region. (A.I. 2016)
34. • Changes in the industrial structure.
• Problems of industrial waste and pollution.
35. Explain any two features of footloose industries. (A.I. 2016)
35. Two features of footloose industries are:
(1) It depends on any specific raw material, weight losing or otherwise.
(2) It largely depends -on component parts which can be obtained anywhere.
36. "Agri-business farms are mechanized and large in size". Examine the statement. (CBSE 2016)
36. Agri-business farms are large estates or commercial in nature therefore, they are mechanized and used scientific methods of cultivation. Tea estate, coffee state and cocoa estate are the examples of agri-business farms.
37. Distinguish between the small-scale industries and large-scale industries in the world, by stating three points of distinction of each. (CBSE 2008)
37. Three points of distinction between small- and large-scale industries are:

	Small Scale Manufacturing		Large Scale manufacturing
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(i)	The place of manufacture is a workshop outside the home or cottage of the producer.	(i)	The place of manufacture is a huge industry.
(ii)	Capital investment is little.	(ii)	It requires large capital investment.
(iii)	This type of manufacturing uses local raw material.	(iii)	This type of manufacturing uses various raw materials and large market for the products.

38. Classify industries of the world on the basis of ownership into three groups. State the main feature of each group. (CBSE 2009, 10)

38. On the basis of ownership industries can be grouped into:

- Public Sector Industries,
- Private Sector Industries and
- Joint Sector Industries

Main features of each group are:

- Public Sector Industries are owned and 'managed by governments. In India, there are a number of Public Sector Undertakings (PSUs).
- Private Sector Industries are owned by individual investors. These are managed by private organisations.
- Joint Sector Industries are managed by joint stock companies or sometimes the private and public sectors together establish and manage the industries.

39. How are technological innovations an important aspects of modern manufacturing industries? Explain any three aspects in this regard. (CBSE 2011)

39. Technological innovations through research and development strategy are an important aspect of modern manufacturing,

- It is essential for quality control.
- Technological innovations required for eliminating waste and inefficiency.
- In the modern days it is highly essential for combating pollution.

40. How do secondary activities add to natural resources? Explain with three examples. (CBSE 2012)

40. Secondary activities add values to natural resources by transforming raw materials into valuable products. Three examples are:

- Cotton in the ball has limited use but after it is transformed into yarn, becomes more valuable and can be used for making clothes and garments.
- Iron ore can be used; directly from the mines, but after being converted into steel it gets its value and can be used for making many valuable machines, tools, etc.
- Most of the materials from the farm, forest, mine and the sea are processed into various valuable items.

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41. Give the meaning of high-tech industry. State any two characteristics of this industry. (A.1.2013)

41. High technology is the latest generation of manufacturing activities. It is the best understood as the application of intensive research and development efforts leading to the manufacture of products of an advanced scientific and engineering character.

Characteristics of High-tech Industry:

- They are neatly spaced, low, modern, dispersed, office plant lab buildings rather than massive assembly structures.
- Robotics on the assembly line computer aided design and manufacturing, electronic controls of smelting and refining processes.

42. Differentiate between small scale manufacturing and large-scale manufacturing. (CBSE2018)

42. Points of distinction between small scale manufacturing and large-scale manufacturing:

- Small scale industries use local raw material, whereas large scale industries use variety of raw materials brought from far and near.
- Small scale industries use simple power-driven machines, whereas large scale industries use advanced technology and work on assembly line production,
- Small scale industries use skilled and semi-skilled labour, whereas large scale industries use skilled labour.
- Small scale industries provide large scale employment and raise local purchasing power, whereas large scale industries provide employment with mass production and huge capital.

43. Define the term 'manufacturing'. Explain any four features of 'small scale manufacturing'. (CBSE 2014)

43. Manufacturing literally means 'to make by hand'. However, now it includes goods "made by machines. Manufacturing is essentially a process which involves transforming raw materials into finished goods of higher value for sale in local or distant markets.

Four features of small-scale manufacturing are:

- Small scale manufacturing is a workshop outside the home/cottage of the producer.
- This type of manufacturing uses local raw material, simple power-driven machines.
- It requires semi-skilled labour. Labour-intensive small scale manufacturing units have been developed in India, China, Indonesia and Brazil in order to provide employment to their population.
- It provides employment and raises local purchasing power.