Chapter 7

Manufacturing Industries

- Manufacturing means production of goods on large scale and conversion of raw materials into valuable products. Example – aluminium from bauxite, sugar from sugarcane, textile from cotton etc. It is an organised human efforts.

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

Importance of Manufacturing

(a) Manufacturing industries help in modernising agriculture and reduce the heavy dependence of people on income generated by agriculture. They provide jobs to the people in secondary and tertiary sectors.

(b) Industrial development helps in reducing unemployment and poverty from the country.

(c) Export of manufactured goods brings foreign exchange.

(d) India's prosperity lies in increasing and diversifying manufacturing industries.

- Agriculture and Industry are depend on each other. Example– agroindustries.

- The manufacturing company's development and competitiveness assisted agriculturists for making their production more efficient and productive.

- Contribution of industry to the National Economy–

  – The share of manufacturing industry in GDP is estimated at 17%.

  – The National Manufacturing Competitiveness Council has been set up which aims at increasing GDP upto 12% in next decade.

Industrial Location

Industrial locations are influenced by

(a) Availability of raw material

(b) Capital

(c) Labour

(d) Power supply

(e) Accessibility to market

Classification of Industries

Manufacturing industries are classified as follows

A. On the basis of source of raw materials used

  (a) Agro based – It depends on agriculture like cotton, textile, sugar, tea etc.

  (b) Mineral based – It needs minerals for the manufacturing of goods. Example – Iron and Steel, Cement, Machine tools etc.

B. On the basis of their main role

  (a) Basic or key industries– They supply products to manufacture other goods. Example – Iron and Steel Industry, Aluminium smelting industry etc.

  (b) Consumer industries – They produce goods for direct use of customers. Example– Toothpaste, Sewing machines, Paper industries etc.

C. On the basis of Capital investment

  (a) Small scale industries – They refer to industries in which the maximum investment is one crore rupees.

  (b) Large scale industries – Investment is more than one crore rupees.

D. On the basis of ownership

  (a) Public sector – Which is owned and operated by government agencies. Example– BSNL, SAIL, BHEL etc.

  (b) Private sector – It is owned and operated by individual or a group of individuals. Example – TISCO, Dabur Industries etc.

  (c) Joint sector industries – They are run jointly by the public and private sectors. Example – Hindustan Zener Ltd., Bharat Aluminium Company.

  (d) Co-operative sector industries– These are owned and managed equally by a group of people like producers, suppliers and workers for their benefit.

E. On the basis of the weight of raw material & finished goods

  (a) Heavy industries – They use heavy raw materials. Example – Iron & Steel Co., Automobiles.

  (b) Light industries – They use light raw materials and produce light goods. Example – Electrical industries.

Agro-Based Industries

(1) **Textile Industry**

- It contributes 4% in GDP.

- It contributes to industrial development, employment generation and foreign exchange earnings.

Cotton textiles

- It is the most important industry in terms of employment and production of export goods. Tamil Nadu, Maharashtra and Gujarat have many textile units.

- India exports yarns to Japan, U.S.A., U.K., Nepal, Russia, France, Sri Lanka and other African countries.

Jute Textile– India manufactures the largest quantity of jute goods in the world. West Bengal, Andhra Pradesh, Bihar, U.P. and M.P. are its producing states.

Silk Textile– Karnataka leads in silk textiles followed by Assam.

Woollen Textiles – The distribution of the woollen industry is affected by market rather than raw materials.

(2) Sugar Industry

- India stands second as a world producer of sugar.
- India stands first in gur and khandsari.
- There are 460 sugar mills in the country.
- The largest number of sugar industry is located in Uttar Pradesh followed by Maharashtra.
- Seasonal nature of the industry, old and inefficient methods of production and transport delay affect the production.

(3) Mineral Based Industries–

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

(i) Iron and Steel Industry–

- It is the basic industry.
- Production and consumption of steel is regarded as the index of country's development.
- It is a heavy industry because its raw material and finished goods are heavy and bulky.
- India produces 32.8 million tons of steel but only 32 kg of per capita steel is consumed.
- India ranks 9th in the world's crude steel producers.
- TISCO, Bhilai, Bokaro, Durgapur, Rourkela, Burnpur are India's famous steel plants.

(ii) Aluminium Smelting–

- It is the second most important metallurgical industry in India.
- It is light, resistant to corrosion, malleable, good conductor of heat and strong when mixed with other metals.
- India produces 600 million tonnes of aluminium.
- Chhattisgarh, Maharashtra, W.B., Orissa, Kerala, U.P., have aluminium smelting plants.

(iii) Chemical Industry–

- Chemical industry of India is the fast growing industry.
- Its share is 3% of the GDP.
- It has 3rd rank in Asia and 12th rank in the world.
- Inorganic chemicals consist of sulphuric acid, synthetic fibres, plastics, adhesive, soap etc.
- Organic chemicals include petrochemical, synthetic, rubber, plastics, pharmaceuticals plants.

(iv) Fertilizer Industry–

- India is the third largest producer of nitrogeneous fertilizers.
- There are 10 public sector undertakings and one co-operative sector undertaking is located at Hazira in Gujarat.
- Gujarat, Tamil Nadu, Uttar Pradesh, Punjab, Kerala are fertiliser producing states.

(v) Cement Industry–

- Cement is used for construction work.
- It requires bulky and heavy raw materials like limestone, Silica, alumina and gypsum.
- The first cement plant was established in Chennai in 1904.
- There are 128 large plants and 332 mini plants in country.

(vi) Automobile Industry–

- It provides various types of vehicles like trucks, buses, cars, two wheelers, three wheelers and multi-utility vehicles.
- There are 15 manufacturers of passenger cars and multi-utility vehicles, 9 of commercial vehicles and 14 of the two and three wheelers.
- Delhi, Mumbai, Chennai, Kolkata, Indore, Jamshedpur and Bangalore are major centres.

(vii) Information Technology and Electronics Industry–

Bangalore is famous as the electronic capital of India.

18 software technology parks provide single window service and high data communication facility to software experts.

- This industry earns major foreign exchange.
- The success of IT industry depends on the growth of hardware and software.

Industrial Pollution and Environmental Degradation

Industries contribute in the economic development of the country. But at same time there are many bad effects of it like increase in water, air and noise pollution and land degradation.

(a) Air pollution

It is caused by the presence of high proportion of undesirable gases like sulphur dioxide and carbon monoxide. It adversely affects the health of the mankind as well as the environment. Toxic gas leakage can be very hazardous. Example– Bhopal Gas Tragedy.

(b) Water Pollution

- Industries pollute the water by discharging large quantities of chemical wastes and garbage in it.
- This water sometimes become poisonous.

(c) Thermal Pollution

It occurs when hot water from factories and thermal plants drained into river.

Wastes from nuclear power plants can cause cancer, birth defects and miscarriages.

(d) Noise Pollution

- It can cause hearing impairment, increased heart rate and blood pressure.
- Unwanted sound irritates and is a source of stress.

Steps to Control Environmental Degradation

1. Reuse and recycle water in two or more successive stages.

2. Harvesting of rainwater.

3. Treating hot water and effluents. It can be done in three phases–

   (a) Primary treatment by mechanical means like grinding, flocculation and sedimentation.

   (b) Secondary treatment by biological process.

   (c) Teritary treatment by biological, chemical and physical processes.

4. Machinery should be redesigned to increase energy efficiency.

5. Generators should be fitted with silencers.

6. NTPC is a major power providing corporation of India.

   – It has EMS (Environment Management System) 14001. It aims at–

(i) Optimum utilisation of equipment adopting latest techniques.

(ii) Minimising waste generation by maximum use of ash.

(iii) Providing green belts for nurturing ecological balance.

Important Keywords–

1. Village industry – Industry in which the finished products are consumed in local areas.

2. Cottage industry – Industry in which artisans work on wood, tusk, cane, brass, gold, silver and stone in their home.

3. Synthetic fibre – Human made fibre.

4. Teritary sector – Economic activity that provides services to other sectors in the form of banking, education, distribution and transportation.

5. Integrated steel plant – It is very large and handles everything in one complex, from accumulating raw material to steel making, rolling and shipping etc.

Exercise 1

DIRECTIONS : This section contains multiple choice questions. Each question has 4 choices (1), (2), (3) and (4) out of which only one is correct.

1. Which one of the following industries uses bauxite as a raw material?
   (1) Aluminium   (2) Cement
   (3) Steel   (4) Jute

2. Which one of the following industries manufacture telephones, computers?
   (1) Information technology (2) Electronics
   (3) Aluminium   (4) Steel

3. Which item is the most important among the exports of India in terms of total value?
   (1) Cotton textiles   (2) Iron ore
   (3) Tea   (4) Engineering goods

4. The largest number of cotton textile mills is in–
   (1) Gujarat   (2) Maharashtra
   (3) Tamil Nadu   (4) Karnataka

5. Which industry provides jobs to the maximum number of people?
   (1) Cotton textile   (2) Iron and steel
   (3) Sugar Industry   (4) Tea processing

6. Where are broad gauge railway engines manufactured?
   (1) Gorakhpur   (2) Chittaranjan
   (3) Jamshedpur   (4) Varanasi

7. Why are most iron and steel plants located near coalfields?
   (1) Because iron ore is found near coalfields
   (2) Because labour is interchangable.
   (3) Cost of transportation of coal can be minimised
   (4) Products can be consumed in the mining sector itself.

8. The first iron and steel plant of India was established at–
   (1) Bokaro   (2) Durgapur
   (3) Bhilai   (4) Jamshedpur

9. Where are electric locomotives manufactured?
   (1) Chittaranjan   (2) Varanasi
   (3) Bhopal   (4) Jamshedpur

10. HSL, Durgapur has been established with the help of–
    (1) USSR   (2) UK
    (3) Sweden   (4) Germany

11. In which state is Batanagar located?
    (1) U.P.   (2) Tamilnadu
    (3) West Bengal   (4) Orissa

12. What factor influences the woollen textile industry in India–
    (1) Skilled labour   (2) Raw material
    (3) Capital   (4) Market factor

13. Where was the first paper mill of the country located?
    (1) Maharashtra   (2) West Bengal
    (3) Haryana   (4) Madhya Pradesh

14. Which state is the leading producer of cement?
    (1) Rajasthan   (2) Andhra Pradesh
    (3) West Bengal   (4) Maharashtra

15. Which state has the largest number of sugar mills?
    (1) Uttar Pradesh   (2) Maharashtra
    (3) Haryana   (4) Bihar

16. Which state is the leading producer of glass?
    (1) Madhya Pradesh   (2) Uttar Pradesh
    (3) Bihar   (4) Tamil Nadu

17. Where is the Hindustan Antibiotics plant located?
    (1) Delhi   (2) Rishikesh
    (3) Faridabad   (4) Mumbai

18. Where is the oldest oil refinery located?
    (1) Haldia   (2) Barauni
    (3) Digboi   (4) Cochin

19. In which state is Tarapur located?
(1) Tamilnadu (2) West Bengal
(3) Uttar Pradesh (4) Maharashtra

20. Which agency is related to the development and exploration of the hydro-carbons?
(1) National Hydrocarbon Corporation
(2) Oil India Ltd.
(3) Oil and Natural Gas Commission.
(4) Geological survey of India.

21. Where was the first fertiliser plant in the public sector established?
(1) Nangal (2) Cochin
(3) Trombay (4) Sindri

22. Why Rupnarainpur is famous for?
(1) Hindustan Copper plant.
(2) Hindustan cable factory.
(3) Bharat Aluminium factory.
(4) India Telephone Industry

23. Which one is the major source of foreign exchange of IT industry?
(1) BHEL (2) SAIL
(3) BPO (4) OIL

24. Which one of the following major ports has been developed to decongest Kolkata port?
(1) Kandla (2) Haldia
(3) Paradip (4) Marmagao

25. Bamboo is a basic raw material for which industry?
(1) Paper (2) Automobiles
(3) Fertilizer (4) Chemical

27. Which one is public sector industry?
(1) HAIL (2) TATA STEEL
(3) MNCC (4) SAIL

28. Limestone is a raw material required for
(1) Cement industry (2) Fertilizer industry
(3) Automobile industry (4) Sugar industry

29. Phospo-gypsum and iron and steel slags are the types of
(1) Soil (2) Fertilizers
(3) Solid wastes (4) Minerals

30. Biological, chemical and physical processes of treatment are called–
(1) Tertiary treatment (2) Secondary treatment
(3) Primary treatment (4) Essential treatment

31. Which one is also known as 'Golden Fibre'?
(1) Cotton (2) Jute
(3) Sugarcane (4) Gold

32. Sewage Treatment plant is located at
(1) Secunderabad (2) Gurgaon
(3) Faridabad (4) Bilaspur

33. Hearing impairment, increased heart rate are caused by
(1) Air pollution (2) Noise pollution
(3) Water pollution (4) Thermal pollution

34. Which one has ISO Certification for EMS?
(1) BHEL (2) NTPC
(3) TISCO (4) BSNL

35. Which industry did employ over one million persons in 2005?
(1) Communication (2) Electronics
(3) IT (4) Automobiles

36. In NALCO what kind of mill was set up?
(1) Strip coasting (2) Gas turbine rotor
(3) Cable manufacturing (4) Sewage treatment

37. Chemical industry contributes in GDP
(1) 3% (2) 5%
(3) 7% (4) 11%

38. An organic plant is locate a near?
(1) Coalfields (2) Mines
(3) Oil refineries (4) Biogas plant

39. How many smelting plants are there in India?
(1) 8 (2) 12
(3) 11 (4) 10

40. Which industry has 10 public sector understandings?
(1) Chemical (2) Fertilizer
(3) Smelting (4) Cement

41. Which state is the chief producer of silk?
(1) Karnataka (2) Bihar
(3) Orissa (4) Maharashtra

42. Due to highcost, demand of _____ has decreased.
(1) Cotton (2) Silk
(3) Jute (4) Woollen

43. Why Perambur is famous for?
(1) Cotton fabrics
(2) Silk embroidery
(3) Leather work
(4) Integrated coaches manufacturing unit

44. Where is petrochemical industry located?
(1) Amritsar (2) Mumbai
(3) Haryana (4) Uttar Pradesh

45. Which one of the country is giving stiff competition to India in Jute production?
(1) Bangladesh (2) China
(3) Thailand (4) Brazil

46. Mining, lumbering and fishing are categorised as–
(1) Primary Industries (2) Secondary Industries
(3) Tertiary Industries (4) Basic Industries

47. Which one is consumer industry?
(1) Fountain pen industry (2) Cotton textile
(3) Iron & steel industry (4) Chemical industry

48. Which one is complex in nature?
(1) Industrial location (2) National economy
(3) Raw material (4) Manufactured goods

49. Cotton, Jute, Silk textile, tea are
(1) Basic industries
(2) Agro based industries
(3) Mineral based industries
(4) Public sector industries

50. What is the share of textile industry in GDP?
(1) 2% (2) 3%
(3) 5% (4) 4%

51. Electrical industries are called
(1) Light industries (2) Heavy industries
(3) Agro based (4) Mineral based

52. The first textile mill was established in
(1) 1890 (2) 1854
(3) 1860 (4) 1852

53. Which country imports India's yarn?
(1) China (2) Japan
(3) Bhutan (4) Nepal

54. How many jute textile mills are there in India?
(1) 50 (2) 65
(3) 70 (4) 80

55. Where was the first jute mill was set up?
(1) Kolkata (2) Jamshedpur
(3) Sindri (4) Chennai

56. Which one is the largest producer of Sponge iron?
(1) Japan (2) India
(3) Bangladesh (4) U. K.

57. How many manufacturers are there for passenger cars?
    (1) 15   (2) 12
    (3) 13   (4) 11
58. Which one is emerged as electronic capital of India?
    (1) Gurgaon   (2) Faridabad
    (3) Bangalore   (4) Kolkata
59. How many software technology parks have been established?
    (1) 18   (2) 19
    (3) 20   (4) 17
60. Which city is known as Silicon Valley of India?
    (1) Hyderabad   (2) Pune
    (3) Bangalore   (4) Chennai
61. Which is the backbone of any company?
    (1) The iron and steel industry
    (2) Cotton textile industry
    (3) Fertilizer industry
    (4) Chemical industry

62. Which country is the largest producer and consumer of Iron and Steel in the world?
    (1) China   (2) Japan
    (3) India   (4) U.S.A.
63. Inorganic and organic are two sectors of which industry?
    (1) Cement   (2) Chemical
    (3) Jute
    (4) Information Technology
64. In 2004, how much tonnes of aluminium was produced?
    (1) 6000   (2) 7000
    (3) 5000   (4) 3000
65. Oil India limited is an example of
    (1) Public sector   (2) Private sector
    (3) Joint sector   (4) IT sector
66. Which of the following cities is known for its cotton industry?
    (1) Bangalore   (2) Mumbai
    (3) Ahmedabad   (4) Delhi

Exercise 2

Matching Based MCQ

DIRECTIONS (Qs. 1 to 7) : Match Column-I with Column-II and select the correct answer using the codes given below the columns.

1.
Column I		Column II
A.	Agro based	(p) Petrochemical
B.	Mineral based	(q) BPO
C.	Automobile	(r) Textile
D.	Information technology	(s) Transport

(1) A – (r); B – (p); C – (s); D – (q)
(2) A – (r); B – (q); C – (p); D – (s)
(3) A – (q); B – (r); C – (s); D – (p)
(4) A – (r); B – (q); C – (s); D – (p)

2.
Column I		Column II
A.	BHEL	(p) Smelting plants
B.	TISCO	(q) Joint sector
C.	OIL	(r) Public sector
D.	NALCO	(s) Private sector

(1) A – (s); B – (r); C – (p); D – (q)
(2) A – (r); B – (s); C – (q); D – (p)
(3) A – (q); B – (s); C – (p); D – (r)
(4) A – (q); B – (p); C – (s); D – (r)

3.
Column I		Column II
A.	Sugar Mills	(p) 8
B.	Jute Mills	(q) 460
C.	Cotton Textile Mills	(r) 70
D.	Aluminium Smelting plants	(s) 1600

(1) A – (s); B – (r); C – (p); D – (q)
(2) A – (q); B – (r); C – (p); D – (s)
(3) A – (r); B – (s); C – (p); D – (q)
(4) A – (q); B – (r); C – (s); D – (p)

4.
Column I		Column II
A.	1904	(p) First Jute Mill
B.	1854	(q) TISCO (First IES Co.)
C.	1859	(r) First Textile Mill
D.	1906	(s) First Cement Plant

(1) A – (r); B – (s); C – (q); D – (p)
(2) A – (q); B – (s); C – (p); D – (r)
(3) A – (s); B – (r); C – (p); D – (q)
(4) A – (s); B – (p); C – (s); D – (r)

5.
Column I		Column II
A.	Cotton textile industry	(p) Orissa
B.	Cement plant	(q) Faridabad
C.	Aluminium smelting plant	(r) Gujarat
D.	Sewage treatment plant	(s) Chennai

(1) A – (s); B – (r); C – (p); D – (q)
(2) A – (r); B – (s); C – (p); D – (q)
(3) A – (q); B – (r); C – (s); D – (p)
(4) A – (p); B – (s); C – (q); D – (r)

6.
Column I		Column II
A.	Sugar Industry	(p) Bauxite
B.	Aluminium Industry	(q) Limestone
C.	Cement Industry	(r) Copper
D.	Electrical Industry	(s) Sugarcane

(1) A – (s); B – (p); C – (q); D – (r)
(2) A – (s); B – (r); C – (p); D – (q)
(3) A – (r); B – (s); C – (p); D – (q)
(4) A – (q); B – (s); C – (p); D – (r)

7.
Column I		Column II
A.	Large Scale Industries	(p) Brass
B.	Small Scale Industries	(q) Cotton textile
C.	Village Industries	(r) Bicycle
D.	Cottage Industries	(s) Handloom

(1) A – (r); B – (s); C – (p); D – (q)
(2) A – (q); B – (r); C – (s); D – (p)
(3) A – (s); B – (r); C – (p); D – (q)
(4) A – (q); B – (p); C – (s); D – (r)

8. Consider the following statements
   (a) Cotton textile industry provides employment to more than 1.5 lakh people.
   (b) There are 1600 textile mills situated over 80 towns of India.
   (c) India exports cotton yarn to Japan.
   (d) The first successful textile mill was established in Chennai.
   Which of the statement(s) given above is/are correct?
   (1) (a), (b) and (c)   (2) (a) and (b)
   (3) (b) and (d)   (4) (a) and (c)

9. With reference to the importance of manufacturing industry Consider the following statements
   (a) Manufacturing industries help in modernising agriculture.
   (b) Export of manufactured goods increase trade and commerce and brings foreign exchange.
   Which of the statement(s) given above is/are correct?
   (1) (a) only   (2) (b) only
   (3) Both (a) and (b)   (4) Neither (a) nor (b)

10. Consider the following statements
    (a) Industrial locations are simple in nature.
    (b) Industrialisation leads to urbanisation.
    (c) Government policies and specialised labour affect the industrial location.
    (d) The decision of industrial location should be high cost.
    Which of the statement(s) given above is/are correct?
    (1) (a), (b) and (c)   (2) (b), (c) and (d)
    (3) (b) and (c)   (4) (a) and (d)

11. Consider the following statements
    (a) India produces electronic goods worth ₹ 68,450 crore.
    (b) Hyderabad is considered as Silicon Valley of India.
    (c) The electronic industry manufacture defence equipment.
    (d) BPO is related to IT industry which one is correct?
    Which of the statement(s) given above is/are correct?
    (1) (a), (b) and (c)   (2) (a), (c) and (d)
    (3) (a) and (d)   (4) (b) and (c)

12. With the reference of capital consider the following statements.
    (a) This type of industry has huge investments of capital.
    (b) Capital intensive industry require less infrastructure.
    Which of the statement(s) given above is/are correct?
    (1) (a) only   (2) (b) only
    (3) Both (a) and (b)   (4) Neither (a) nor (b)

13. Consider the following statements
    (a) There is a great need of new machines in agriculture.
    (b) Agro based industries convert agricultural products into value added products.
    (c) Fertilizers are manufactured in village industries.
    (d) Sugar, Cotton textile are agro-based industries.
    Which of the statement(s) given above are correct?
    (1) (a), (b) and 4   (2) (a) and (b)
    (3) (b), (c) and (d)   (4) (a) and (c)

14. Consider the following statements
    (a) Joint sector industries are owned and operated by both private as well as public sector.
    (b) TISCO is a public sector plant.
    (c) TISCO, BHEL, HEC are private sector industries.
    (d) Iron and Steel industry is a large scale industry.
    Which one is correct?
    (1) (a), (b) and (c)   (2) (b) and (c)
    (3) (a) and (d)   (4) (a), (c) and (d)

DIRECTIONS (Qs. 15 to 23) : Read the passage(s) given below and answer the questions that follow.

PASSAGE - 1

The industrial revolution marked the begining of industrialisation in Great Britain. There were technological developments such as invention of steam engine, power loom, automobile etc. It had great impact on the technology and economy of the country. In India, industrialisation after independence took place. The second five year plan focused on the development of basic and heavy industry. It brought about a change from domestic system to factory system. Factories and mills were established. This transformation led to what is known as the 'Age of Modern Industry'.

15. In which country the industrial revolution first started?
    (1) India   (2) Great Britain
    (3) France   (4) Germany

16. What was the era of begining of industrial revolution?
    (1) 18th Century   (2) 19th Century
    (3) 17th Century   (4) 20th Century

17. Industrial revolution brought a change from domestic system to _____ system.
    (1) rural   (2) factory
    (3) modern   (4) international

18. What was considered as 'Age of modern industry'?
    (1) Economic development
    (2) Industrial revolution
    (3) Urbanisation
    (4) Agricultural degradation

PASSAGE - 2

Bengaluru is also known as the 'Silicon City of India'. It is also called 'Electronic City'. Many manufacturing industries producing machine tools, electric motor communication equipment etc. have been established here. The Karnataka state became the first state to announce an IT policy. In 1984 Texas Instruments entered India for offshore development. In 1991 the Software Technology Park of India was set up at Bangalore. In 1998 the number of IT companies at Bangalore grew up to 253. There are 100 multinational companies set up here. It is the Information Technology capital of India.

19. Which city is also known as Silicon City of India?
    (1) Hyderabad   (2) Bengaluru
    (3) Pune   (4) Chennai

20. What kind of manufacturing industries have been set up here?
    (1) Communication equipment
    (2) Iron and Steel industry
    (3) Cottage industry
    (4) Textile industry

21. Where did IT policy implement first?
    (1) Maharashtra   (2) Karnataka
    (3) Tamil Nadu   (4) Kerala

22. What was the number of IT companies in 1998?
    (1) 250   (2) 198
    (3) 253   (4) 260

23. How many MNC have been set up in Bengaluru?
    (1) 125   (2) 50
    (3) 150   (4) 100

DIRECTIONS (Qs. 24 to 29) : Following questions consist of two statements, one labelled as the **'Assertion'** and the other as **'Reason'**. You are to examine these two statements carefully and select the answer to these items using the code given below.

Code :

(1) Both A and R are individually true and R is the correct explanation of A:

(2) Both A and R are individually true but R is not the correct explanation of A.

(3) A is true but R is false

(4) A is false but R is true.

24. **Assertion :** All aluminium plants are located near sources of hydro or thermal electricity in India.
    Reason : Since aluminium is extracted through the process of electrolysis, it needs large amounts of electricity.

25. **Assertion :** Industrial revolution brought drastic change in the textile industry.
    Reason : Cotton cloth was made by hand spinning of wheels and handloom before 18th century.

26. **Assertion :** Industries controlled and run by the state and by individuals or a group of individuals are called joint sector industries.
    Reason : It is operated by cooperatives of the suppliers of raw materials and workers.

27. **Assertion :** Some industries produce raw materials for other industries.
    Reason : Iron and Steel industry's products are used by factories which produce other types of products.

28. **Assertion :** Chemical industry is responsible for the development of modern petrochemical industry.
    Reason : Basic and consumer goods are classified on the basis of their size.

29. **Assertion :** Era prior to industrial revolution is called 'Age of modern industry'.
    Reason : The use of machines and production on a large scale led to the division of labour and specialisation.

Correct Definition Based MCQ

30. Which of the following is correct definition of manufacturing?
    (1) The process of changing of raw material into products of more value.
    (2) The process of preparing of raw material.
    (3) The process of changing goods into raw material.
    (4) The process of raising crops and rearing livestocks.

31. Which one of the following is the correct definition of public sector unit.
    (1) Which is run and operated by the government and the private sector.
    (2) Which is not a capital intensive industry.
    (3) Which is run and operated by the government.
    (4) Which is managed by a group of people for their mutual benefit.

32. Which is the correct definition of wholesaler?
    (1) A person who acts as a whole earner of the production.
    (2) A person who acts as a middleman between the producer and the retailer.
    (3) A person who acts as a middleman between the producer and the government.
    (4) A person who is producer and seller of the product.

33. What do you mean by cottage industry?
    (1) It deals with the manufacture of crafts by machinery.
    (2) It deals with the manufacture of crafts by hand or without machine.
    (3) It deals with the manufacture of heavy machines.
    (4) It is the biggest manufacturing unit.

34. Which is the correct definition of industrial revolution?
    (1) It is the beginning of industrialisation in Great Britain.
    (2) It is the growth of manufacturing units during 19th Century.
    (3) It is a conversion of old era to modern era.
    (4) It is a revolution which started in India after independence.

Feature Based MCQ

35. On the basis of following features, identify the correct option
    I.   It is a heavy industry.
    II. It provides all types of machinery to run other industries.
    III. India ranks 9th in the world for its production.
    IV. This industry needs more than one crore rupees for investment.
    (1) Iron and Steel industry
    (2) Chemical industry
    (3) Cotton textile industry
    (4) Automobile industry

36. On the basis of following features, identify the correct option
    I.   This industry has developed in last 15 years.
    II. It provides various types of vehicles.
    III. Delhi, Gurgaon, Mumbai, Pune are its major producing cities.
    IV. It has brought new technology and aligned the industry with global development.
    (1) Chemical   (2) Cement
    (3) Automobile   (4) Information technology

37. On the basis of following features, identify the correct option
    I.   It is caused by toxic gas leakage.
    II. It is caused due to the presence of high proportion of undesirable gas like sulphur dioxide and carbon monoxide.
    III. Emitted smoke by chemical and paper factories and responsible factor for it.
    IV. Burning of fossil fuels also create it.
    (1) Water pollution
    (2) Noise pollution
    (3) Air pollution
    (4) Thermal pollution

38. On the basis of following features, identify the correct option
    I.   India stands second in its production.
    II. It supports 2.61 lakh workers directly.
    III. In 2005, a government policy was implemented.
    IV. There are 70 mills all over India.
    (1) Sugar industry   (2) Cotton industry
    (3) Silk industry   (4) Jute industry

39. On the basis of following features, identify the correct option
    I.   It is the second largest metallurgical industry of India.
    II. It becomes strong when mixed with other metals.
    III. It is a good conductor of heat.
    IV. It is malleable.
    (1) Cement   (2) Aluminium
    (3) Iron & Steel   (4) Copper

Hints SOLUTIONS

Exercise 1

1. (1) 2. (2) 3. (4) 4. (2)
5. (1) 6. (2)
7. (3) Because coal is a basic raw material for its production.
8. (4) As Jamshedji Tata was the founder of this industry, the place is also known as Tatanagar.
9. (3) 10. (2) 11. (3) 12. (4)
13. (2)
14. (2)
15. (1) Due to its heavy production it is also called 'Sugar bowl'.
16. (2) 17. (2) 18. (3) 19. (4)
20. (3) 21. (4) 22. (2)
23. (3)
24. (2) 25. (1) 27. (4)
28. (1) Limestone is found in association with rocks composed of cacium carbonates.
29. (3)
30. (1) These processes control environmental degradation.
31. (2) 32. (3)
33. (2) Noise pollution is an irritant and a source of stress.
34. (2)
35. (3) It is also a major foreign exchange earner industry.
36. (1)
37. (1) It is third largest in Asia and 12th largest in the world.
38. (3) 39. (1)
40. (2) One cooperative sector undertaking was established at Hazaria by the Fertilizer Corporation of India.
41. (1)
42. (3) Synthetic fibres are used instead of jute because of its high cost.
43. (4) 44. (2)
45. (1) Bangladesh ranks first in jute production in the world.
46. (1) 47. (1)
48. (1) Because required factors like labour, market, raw material, power can not be available in one place.
49. (2) Because raw materials are obtained from agriculture for the manufacturing of goods.
50. (4) 51. (1)
52. (2) It was established in Mumbai.
53. (2)
54. (3) Most of these are located in West Bengal along the banks of Hugli.
55. (1) 56. (2) 57. (1) 58. (3)
59. (1) It provides single window service and high data communication facility to software experts.
60. (3) 61. (1)
62. (1) 63. (2) 64. (1) 65. (3)
66. (3) In 1905, there were 33 textile mills in Ahmedabad. It is the second largest textile centre in India.

Exercise 2

1. (1) 2. (2) 3. (4) 4. (3)
5. (2) 6. (2) 7. (2)
8. (1) The first textile mill was established in Mumbai in 1854.
9. (3) Manufacturing industries reduce heavy dependence of people on agricultural income.
10. (3) Industrial locations are complex in nature because its decision influences many factors.
11. (2) Bangalore is IT capital of India. It is also called Silicon city of India.
12. (1) 13. (1) 14. (3) 15. (2)
16. (1) 17. (3) 18. (2) 19. (2)
20. (1) 21. (2) 22. (3) 23. (4)
24. (3) 25. (1) 26. (3)
27. (1) They are also called basic or key industries Example – Iron & steel, Aluminium smelting.
28. (3) 29. (4) 30. (1)
31. (3) SAIL (Steel Authority of India) is a public sector unit.
32. (2) 33. (2) 34. (1) 35. (1)
36. (3) 37. (3)
38. (4) Most of the Jute mills are located in West Bengal near Hugli river.
39. (2) Bauxite is a basic raw material for aluminium industry.