Chemistry Questions on Industrial Chemistry

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1. What triggered the rapid development of chemical industries in the 19th century?
   A) The discovery of new metals
   B) The Industrial Revolution
   C) The discovery of synthetic fibers
   D) The development of renewable energy
2. Which of the following is NOT an example of a product produced by chemical industries?
   A) Synthetic fibers
   B) Fertilizers
   C) Clothing
   D) Drugs
3. Which country is mentioned in the note as needing an industrial revolution to utilize its mineral deposits?
   A) India
   B) Ethiopia
   C) Brazil
   D) China
4. What is industrial chemistry?
   A) A branch of chemistry dealing with laboratory experiments
   B) A branch of chemistry applied to manufacturing processes
   C) A type of chemistry used only in pharmaceutical industries
   D) A branch that studies biological processes
5. How does industrial chemistry differ from classical chemistry?
   A) Industrial chemistry focuses on theoretical concepts
   B) Industrial chemistry is applied in large-scale production
   C) Classical chemistry is only used in research
   D) Classical chemistry focuses on biological processes
6. Which of the following is an example of a raw material used in chemical industries?
   A) Water
   B) Iron ore
   C) Coal
   D) All of the above
7. What is one key characteristic of chemical industries?
   A) They only produce renewable energy
   B) They consume relatively small quantities of energy
   C) They use chemical reactions to transform raw materials into products
   D) They focus solely on food production
8. What role does energy play in chemical industries?
   A) Energy is used only for lighting
   B) Energy is consumed during the manufacturing process

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C) Energy is not needed in chemical manufacturing
D) Energy is only used for transportation

9. What is the importance of quality control in chemical industries?
A) To ensure products are made cheaply
B) To ensure that products meet the required specifications
C) To improve energy efficiency
D) To reduce raw material costs

10. Which of the following is NOT one of the characteristics of chemical industries?
A) They only produce natural products
B) They test their products in quality control labs
C) They use raw materials to produce finished and semi-finished products
D) They use safe operation methods in their manufacturing processes

11. Which of the following is a renewable resource?**

a) Coal

b) Natural gas

c) Solar energy

d) Iron ore

12. Which component of the natural environment is a source of sodium chloride and magnesium?

a) Atmosphere

b) Hydrosphere

c) Lithosphere

d) Biosphere

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13. What percentage of dissolved material is found in seawater by mass?

a) 1.5%

b) 3.5%

c) 5.0%

d) 10.0%

14. Which of the following is a non-renewable resource?

a) Cotton

b) Natural rubber

c) Fossil fuels

d) Water

15. Which of the following gases is NOT mentioned as a component of the Earth's atmosphere?

a) Nitrogen (N_2)

b) Oxygen (O_2)

c) Methane (CH_4)

d) Argon (Ar)

16. What is the primary raw material used by sugar industries?

a) Wheat

b) Sugar cane

c) Corn

d) Beetroot

17. Which of the following industries is an example of a chemical industry?

a) Textile industry

b) Leather industry

c) Detergent and soap manufacturing industry

d) Beverage industry

18. What is the main characteristic of non-renewable resources?

a) They can be replenished through natural cycles.

b) They are inexhaustible on a human scale.

c) They cannot be regenerated through natural processes.

d) They are derived from the biosphere.

19. Which of the following is NOT a product of the biosphere?

a) Oils and fats

b) Natural fibers

c) Magnesium

d) Leather

20. What is the primary purpose of the manufacturing industry?

a) To extract raw materials from the environment

b) To produce goods from raw materials using organized labor

c) To provide transportation services

d) To generate renewable energy

21. **From which part of the natural environment are the majority of chemical industry raw materials obtained?**
   A) Hydrosphere
   B) Lithosphere
   C) Atmosphere
   D) Biosphere
22. **Which of the following gases is NOT mentioned as part of the Earth's atmosphere?**
   A) N_2
   B) O_2
   C) CO_2
   D) H_2O
23. **What is seawater a good source of?**
   A) Oxygen and nitrogen
   B) Sodium chloride, magnesium, and bromine
   C) Carbon dioxide and nitrogen
   D) Iron and copper
24. **From which natural source are coal, natural gas, and crude petroleum derived?**
   A) Hydrosphere
   B) Lithosphere
   C) Atmosphere
   D) Biosphere
25. **Which of the following is an example of a renewable resource?**
   A) Coal
   B) Copper

C) Solar energy
D) Petroleum

26. **Which of these is a non-renewable resource?**
A) Wood
B) Water
C) Coal
D) Solar energy

27. **What is the main difference between renewable and non-renewable resources?**
A) Renewable resources can be replenished naturally, while non-renewable resources cannot.
B) Non-renewable resources can be replenished naturally, while renewable resources cannot.
C) Renewable resources are limited in quantity, while non-renewable resources are inexhaustible.
D) Renewable resources are not used in chemical industries, but non-renewable resources are.

28. **Which of the following is NOT an example of a manufacturing industry based on raw materials used for production?**
A) Sugar industry
B) Detergent industry
C) Food processing industry
D) Paper industry

29. **What type of chemical industries use products from other industries to manufacture their products?**
A) Sugar industries
B) Detergent and soap industries
C) Beverage industries
D) Leather industries

30. **Which of the following industries is classified based on the product type?**
A) Food processing industries
B) Chemical industries
C) Textiles industries
D) All of the above

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