

Important Long-type

- ① Write the postulates and failure of Rutherford's atomic model.
- ② What are the postulates of Bohr's atomic model?
- ③ Electronic configurations - $\left. \begin{array}{l} 1-30 \\ 4-2n \end{array} \right\}$
(Imp) (Except $n - \underline{\text{Cr, Cu}}$)
- ④ Differentiate between ionic and covalent bond.
- ⑤ Draw Structures of NaCl , MgCl_2 , O_2 , N_2 , H_2O , NH_3 , NH_4^+ , H_3O^+ , SO_2 .
- ⑥ postulates and limitations of :-
 - (a) Arrhenius theory
 - (b) Lowry-Bronsted theory
 - (c) Lewis theory.
- ⑦ What are the different types of salts? Define them and give one example of each.

⑧ What are the ^{various} applications of pH in industries?
(Importance of pH in industry).

⑨ Differentiate between Strong and Weak electrolyte.

⑩ What is Electrolysis? Describe the process of Electrolysis with the help of a suitable diagram.

⑪ Describe the process of electrolysis of :-
(i) Molten / fused NaCl.
(ii) Aqueous NaCl.

⑫ State ^{and} Faraday's law of Electrolysis. Explain. (Both the laws).
(Statement and mathematical expression) _{must}.

⑬ What are the industrial applications of Electrolysis?

14) What is Corrosion? What do you mean by Water line corrosion? Describe with reactions.

15) What is Metallurgy? Describe its steps.

16) Describe various methods for the concentration of ore.

17) Describe briefly the process of Smelting.

18) Differentiate between Aliphatic and Aromatic Hydrocarbons.

19) Describe Soda-lime method of removal of Hardness of water.

20) What are the advantages of Hot lime over cold-lime process?

21) What is the purpose of lubrication? (Advantages of lubricants)

22 Classification of Fuels

23 Write Shortnotes on! (Composition and use)
(a) Producer gas (b) Water gas.

24 Differentiate between ~~Thermosetting~~ and Thermoplastic polymer and Thermo setting polymer.

25 Bakelite - Formation and uses (preparation) properties.

26 Advantages of Vulcanised rubber

27 Bio fertilizers

28 Explain the structure of atmosphere.

29 Pollutants and its types

30 Water pollution and sources of water pollution.

31 Air pollution with four major air pollutants.

32 Depletion of

33) Explain ion-exchange method of removing hardness from water.

34) Distinguish between saturated and unsaturated hydrocarbons.

35) Write the various methods employed for control of water pollution.

36) Explain electrolytic refining with an example.

37) Explain the principle and working of a cyclone collector.

38) State different methods to control air pollution.

39) Acid Rain. Harmful effects of acid rain.

40) Explain various methods to control water pollution.

- (41) Composition and uses of Alloys.
- (42) Nomenclature of organic compounds.
- (43) Composition and uses of LPG and CNG.
- (44) Green house effect.
- (45) State and explain Aufbau principle.
- (46) What are the methods of protection of corrosion?
- (47) Explain, how troposphere is beneficial for living beings.
- (48) Explain oil-floatation method of concentration of ore. (Froth floatation).
- (49) ~~Electrostatic precipitation.~~
- (50) Calculate Molarity, Normality and molality of solution.
- Short notes also.
- ~~The principal~~
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