

Industrial Gases and Chemicals Questions

1. Discuss a method of manufacturing NaOH.
2. Bleaching powder loses its bleaching property when kept in an open bottle for a long time.
3. Describe the iodometric method for estimating available chlorine in the given sample of bleaching powder.
4. Discuss the manufacturing process of acetylene gas and specify its three uses.
5. Define acid mine drainage.
6. 10 g of bleaching powder on reaction with KI required 50 mL of 2*N* hypo solution. What is the % of bleaching powder?
7. In each sample of bleaching powder, the percentage of available chlorine is 49. What volume of chlorine obtained if 10 g of the sample is treated with HCl at *N.T.P.*?
8. Define O₂ sag curve.
9. What is oleum? Explain the contact process for manufacturing sulphuric acid. What are the main applications of sulphuric acid?
10. Write short notes on manufacture and use of bleaching powder.
11. How is hypo is manufactured? What are the main applications of hypo and what precautions should be kept in mind while using it?
12. Define cryogenic air separation.
13. Manufacture and uses of nitrogen.
14. What are the hazards associated with NaOH?
15. List some medicinal uses of KMnO₄. How it is prepared?
16. Give a method for producing K₂Cr₂O₇. How is it hazardous?
17. Except for fractional distillation what other method may be used to manufacture nitrogen gas.
18. Liquid nitrogen needs careful handling and storage, why?
19. Explain the charcoal method of separation of neon gas from the mixture of inert gases.
20. List three applications of neon gas.
21. Give the hazards associated with argon gas.
22. List some uses of argon.
23. Name the different sources of SO₂ in environment. How can SO₂ emission can be controlled?
24. SO₂ is hazardous to vegetation as well as animal. Comment.
25. Explain how borax may be used as
 - (i) Water softener
 - (ii) Buffer
 - (iii) In medicines
26. How is borax manufactured?
27. Borax is a polyborate, explain with its structure.
28. What are the advantages and disadvantages of Diaphragm cell electrolysis method of chlorine production? How does these disadvantages take care of in membrane cell electrolysis method?
29. List different applications of chlorine. With equation how chlorine is used to disinfect water?
30. Give method of storing chlorine safely and write the hazards associated with it.