Chemistry Sample Paper of Class 12

1. Define “Intrinsic Semiconductors”.

2. State Henry’s law about partial pressure of a gas in a mixture.

3. What do you understand by “denticity in a ligand”?

4. Why is an Alkylamine more basic than ammonia?

5. What is meant by Broad Spectrum Antibiotic?

6. It is seen that transition elements in general act as good catalyst. Explain your answer?

7. Why is Copper (I) is not stable in an aqueous solution?

8. CO (II) is easily oxidised in the presence of strong ligands. Explain?

9. How would you account for the fact that metal-metal bonding is more extensive in the 4d and 5d series of transition elements than that of 3d series?

10. Define Order of Reaction and Elementary step in a reaction.

11. How would you obtain benzoquinine from phenol and Propane-2-ol from Propene?

12. Explain Hoffmann’s Bromamide Reaction with a chemical equation.

13. State the principle of recovery of silver after the silver ore has been leached with NaCN.

14. Explain how the phenomenon of adsorption finds application in the process of production of vacuum and hetrogenous catalyst.

15. Explain the principle evolved for the process of vapour phase refining of titanium metal.

16. Explain the rate law and rate constant of a reaction.

17. Expain the conduction of electricity in solids.

18. Aluminum crystallizes in ccp given that the radius of the atom is 125 pm. Find the length of the side of unit cell and how many unit cells are the in 1 cm3 of aluminum.

19. Define:-
a) Peptide linkage
b) Pyranose structure of Glucose

20. Describe the making of ammonia through Haber's Process and also explain its optimum conditions of temperature.

21. Give examples for:-
a) Crystal field splitting
b) Linkage isomerism
c) Ambidendate ligand

22. By giving an example explain the uses of :-
a) Soaps do not work well in hard water.
b) Synthetic detergents are better than soaps

23. Explain Nylon 6,6 with its uses.

24. Point out two important uses of:-
a) Bakelite
b) PVC

25. Give reason(s) the enthalpies of why the atomisation of the transition elements are high.

26. Explain Froath flotation Process with diagram.

27. Give the structures for the following:-
a) $(H_3PO_3)_3$
b) BrF_3

28. Complete the following reactions:-
$MnO_4^- + C_2O_4^- + H^+$
$Cr_2O_7^{2-} + H_2S + H^+$
$Fe^{3++} I^-$
$CrO_4^{2-} + H^+$
$XeF_4 + H_2O$

29. Explain with equations:-
a) Cannizaro's Reaction
b) Mole's Fraction

30. How will you explain for the following occurrence?
a) +3 oxidation state becomes more and more stable from As to Bi in the group.
b) Sulphur in vapour state exhibits para-magnetism.