

REVISION TEST -II

CLASS : XII

MARKS : 70

SUBJECT : CHEMISTRY (FULL PORTION)

TIME : 3.00 HRS

PART-I

CHOOSE THE BEST ANSWER

15 X 1 = 15

1. Which of the metal is extracted by Hall-Heroult process?
 a) Al b) Ni c) Cu d) Zn
2. The most common oxidation state of actinoids is
 a) +2 b) +3 c) +4 d) +6
3. Which of the following is strongest acid among all?
 a) HI b) HF c) HBr d) HCl
4. Which type of geometry for a complex $[\text{Pt}(\text{NH}_3)_4]^{2+}$
 a) trigonal bipyramidal b) octahedral
 c) tetrahedral d) square planar
5. Solid CO_2 is an example of
 a) Covalent solid b) metallic solid
 c) molecular solid d) ionic solid
6. If the initial concentration of the reactant is doubled, the time for half reaction is also doubled. Then the order of the reaction is
 a) Zero b) one c) Fraction d) none
7. During electrolysis of molten sodium chloride, the time required to produce 0.1 mol of chlorine gas using a current of 3A is
 a) 55 minutes b) 107.2 minutes c) 220 minutes d) 330 minutes
8. Which of the following is incorrect for physisorption?
 a) reversible b) increases with increase in temperature
 c) low heat of adsorption d) increases with increase in surface area
9. Which one of the following reaction is an example of disproportionation reaction
 a) Aldol condensation b) cannizaro reaction
 c) Benzoin condensation d) none of these
10. Assertion : Acetamide on reaction with KOH and bromine gives acetic acid
 Reason : Bromine catalyses hydrolysis of acetamide.
 a) if both assertion and reason are true and reason is the correct explanation of assertion.
 b) if both assertion and reason are true but reason is not the correct explanation of assertion.
 c) assertion is true but reason is false
 d) both assertion and reason are false.

11. Saccharin, an artificial sweetener is manufactured from
 a) cellulose b) toluene c) cyclohexene d) starch
12. glucose have _____ primary alcohol and _____ secondary alcohol
 a) three, two b) one, four c) four, one d) three, three
13. _____ is used as an antifreeze in automobile radiator
 a) methanol b) ethanol c) ethylene glycol d) glycerol
14. Solubility product of $BaSO_4$ is _____
 a) S^2 b) S^3 c) $4s^3$ d) s^4
15. Inorganic benzene is _____
 (a) B_2H_6 (b) $B_3N_3H_6$ (c) H_3BO_3 (d) $H_2B_4O_7$

PART-II

Answer the following any six questions

6 X 2 = 12

Note : Question no : 24 is compulsory

16. Give the uses of helium?
17. Write chromyl chloride test ?
18. In an octahedral crystal field draw the figure to show splitting of d orbitals
19. State Bragg's equation. explain it terms
20. what are Lewis acid and bases give one example for each ?
21. Mention the medicinal uses of colloids
22. Formic acid is more stronger than acetic acid. Why ?
23. How is chloropicrin prepared?
24. How are the following conversion effected?
 I) ethylene glycol \rightarrow acetaldehyde ii) glycerol \rightarrow acrolein

PART-III

Answer the following any six questions

6 X 3 = 18

Note : Question no : 33 is compulsory

25. Explain Hume-Rothery rule for formation of alloys?
26. write the postulates of werner's theory?
27. Derive an expression for Nernst equation
28. Mention the three application of Kohlrausch's law
29. What is catenation ? describe briefly the catenation property of carbon ribe adsorption theory of catalysis
30. Give any three difference between DNA and RNA
31. How will silicate classified ? Give an example for each type of silicate ?
32. Describe the structure of diborane
33. The oxidation of unsymmetrical ketone is governed by which rule? State the rule with suitable examples?

PART-IV**ANSWER ALL THE QUESTIONS****5 X 5 = 25**

34. a) i) Explain the principle of electrolytic refining with an example
ii) What is auto-reduction ? give example
(OR)
- b) i) What are the uses of boric acid ?
ii) Write the properties of inter halogen compounds
35. a) i) explain the structure of ammonia
ii) Write the IUPAC ligand name for the following
a) $C_2O_4^{2-}$ b) H_2O
(OR)
- b) i) Define Coordination number
ii) Explain Schottky defect
36. a) i) Derive integrated rate law for a first order reaction $A \rightarrow \text{product}$
ii) give the uses of borax
(OR)
- b) i) Define common ion effect
ii) A solution of silver nitrate is electrolysed for 20 minutes with a current of 2 amperes. Calculate the mass of silver deposited at the cathode .
37. a) i) Write briefly about the preparation of colloids by condensation methods ?
ii) How is neoprene prepared ?
(OR)
- b) i) What happens when glycerol react $KHSO_4$?
ii) How is phenolphthalein is prepared ?
38. a) i) Explain the mechanism of cannizaro reaction?
ii) What is glycosidic linkage ?
(OR)
- b) how will you convert benzaldehyde into the following compounds?
i) benzoin ii) cinnamic acid iii) malachite green
