

REVISION TEST -IV

CLASS : 12TH STD.
SUBJECT : CHEMISTRY

MARKS : 70
TIME : 2.30HRS

PART-I

Chosse the correct answers.

15 X 1 =15

- Which of these is not likely to act as Lewis base?
 a) BF_3 b) PF_3 c) CO d) F^-
- How many faradays of electricity are required for the following reaction to occur $\text{MnO}_4^- \rightarrow \text{Mn}^{2+}$
 a) 5F b) 3F c) 1F d) 7
- Colloids are purified by
 a) Precipitation b) coagulation c) dialysis d) filtration
- Which of the following compounds on reaction with methyl magnesium bromide will give tertiary alcohol.
 a) benzaldehyde b) propanoic acid
 c) methyl propanoate d) acetaldehyde
- In which of the following reactions new carbon – carbon bond is not formed?
 a) Aldol condensation b) Friedel craft reaction
 c) Kolbe's reaction d) Wolf kishner reductio
- Which of the following reagent can be used to convert nitrobenzene to aniline
 a) Sn / HCl b) $\text{ZnHg} / \text{NaOH}$ c) $\text{Zn}/\text{NH}_4\text{Cl}$ d) All of these
- Glucose react with acetic anhydride in the presence of pyridine to give
 a) Mono acetate. b) diacetate c) Penta acetate d) no reaction
- Wolframite ore is separated from tinstone by the process of
 a) Smelting b) Calcination
 c) Roasting d) Electromagnetic separation
- Boric acid is an acid because its molecule
 a) contains replaceable H^+ ion b) gives up a proton
 c) combines with proton to form water molecule
 d) accepts OH^- from water ,releasing proton.
- XeOF_4 structure is
 a) Square pyramidal b) square planar c) linear d) pyramidal
- Which of the following oxidation states is most common among the lanthanoids?
 a) 4 b) 2 c) 5 d) 3

- 12 Oxidation state of iron and the charge on the ligand NO in $[\text{Fe}(\text{H}_2\text{O})_5\text{NO}] \text{SO}_4$ are
 a) +2 and 0 respectively b) +3 and 0 respectively
 c) +3 and -1 respectively d) +1 and +1 respectively
13. The crystal with a metal deficiency defect is
 a) NaCl b) FeO c) ZnO d) KCl
14. The rate constant for a first order reaction is $1.54 \times 10^{-3} \text{ s}^{-1}$. Then the half life period is
 a) 450 S b) 45S c) 4.50S d) 4500S
15. Which one of the following is molecular crystal
 a) NaCl b) diamond c) glucose d) SiO_2

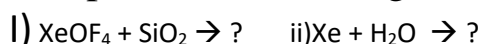
PART-II

Answer the following any six questions.

6 X 2 = 12

Question number 24 is compulsory.

16 complete the following reaction



17. Mention the any two new properties that occur in interstitial compounds.
18. $[\text{Sc}(\text{H}_2\text{O})_6]^{3+}$ is colourless explain
19. Sketch Face centred cubic unit cell and calculate the number of atoms present in crystal
20. Define p^{H}
21. Which will be adsorbed more readily on the surface of charcoal and why? NH_3 or CO_2
22. How is propanoic acid prepared from alcohol?
23. Write the mustard oil reaction?
24. How is phenol prepared from i) chloro benzene ii) isopropyl benzene

PART-III

Answer the following any six questions.

6 X 3 = 18

Question number 33 is compulsory.

25. Why do transition elements form complexes?
26. i) What is coordination number? ii) What is coordination sphere?
27. Explain the equation for the basicity of boric acid
28. Derive an expression for Nernst equation
29. Write about lyophilic and lyophobic colloids. Give any one example for each colloid.
30. Identify the A, B, C compounds
 $\text{CH}_3\text{COOH} + \text{SOCl}_2 \rightarrow \text{A}$ $\text{Pd/BaSO}_4 \rightarrow \text{B}$ $\text{NaOH} \rightarrow \text{C}$
31. Distinguish nucleoside from nucleotides?
32. Write short note on i) promoters ii) autocatalyst

33. Find the pH of buffer solution containing 0.20 mole per litre sodium acetate and 0.18 mole per litre acetic acid. K_a for acetic acid is 1.8×10^{-5} .

PART-IV

Answer the following all questions.

5 X 5 = 25

34. a) I) which type of ores can be concentrated by froth flotation method give two example
 ii) Explain the following terms with suitable example I) Gangue. II) slag
 (OR)
- b) I) How is potash alum prepared ?
 ii) What type of hybridization is found in the following
 I) BrF II) BrF_5 III) BrF_3
 iii) Give the uses of helium
- 35 a) I) Ozone (O_3) act as a powerful oxidizing agent prove it.
 ii) Just be the position of lanthanide and actinide in the periodic table
 (OR)
- b) I) $\text{K}_4[\text{Fe}(\text{CN})_6]$ Identify the i) central metal ion
 ii) co-ordination number
 iii) IUPAC name. iv) ligand
 ii) differentiate between crystalline solid and amorphous solid
- 36 a) I) what is an elementary reaction ? Give the two difference between order and molecularity of a reaction
 ii) Show that the half life period of a zero order reaction is directly proportional to the initial concentration of the reaction.
 (OR)
- b) I) What is buffer solution ? .Mentions the two type of buffer solution.
 ii) Define equivalent conductance
- 37 a) I) Write briefly about the preparation of colloids of any three method by condensation methods ?
 ii) how are the following conversion ?
 1) Phenol \rightarrow 1,4 benzoquinone
 2) Phenol \rightarrow cyclohexanol
 (OR)
- b) I) What happens when fructose is partially reduced with sodium amalgam and water ?
 ii) How will you classify carbohydrates ? with example
- 38 a) I) how will you convert benzaldehyde into the following compounds?
 i) benzoin ii) cinnamic acid iii) malachite green
 ii) Classify the following into monosaccharides diogosaccharides and polysaccharides.
 A)Strech B)Glucose C)Galactose D)Maltose
 (OR)

- b) I) write the mendius reaction ?
ii) write the libermann's nitroso test ?
iii) Aniline does not undergo friedel crafts reaction give reason

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