

Class : 12Register
Number**FIRST REVISION EXAMINATION, JANUARY - 2025**

Time Allowed : 3.00 Hours]

CHEMISTRY

[Max. Marks : 70

PART - I**NOTE:** Answer all the questions.**15x1=15**

1. Wolframite ore is separated from tinstone by the process of
a) Smelting b) Calcination c) Roasting d) Electromagnetic separation
2. The element that does not show catenation among the following p-block elements is
a) Carbon b) silicon c) Lead d) germanium
3. Which of the following is weakest acid among all?
a) HI b) HF c) HBr d) HCl
4. Permanganate ion changes to in acidic medium
a) MnO_4^{2-} b) Mn^{2+} c) Mn^{3+} d) MnO_2
5. A magnetic moment of 3.87 BM will be shown by one among the following
a) $[\text{TiCl}_4]$ b) $[\text{Co}(\text{Cl})_6]^{4-}$ c) $[\text{Cu}(\text{NH}_3)_4]^{2+}$ d) $[\text{Ni}(\text{CN})_4]^{2-}$
6. **Assertion:** due to Frenkel defect, density of the crystalline solid decreases.
Reason: in Frenkel defect cation and anion leaves the crystal.
a) Both assertion and reason are true and reason is the correct explanation of assertion.
b) 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
7. The addition of a catalyst during a chemical reaction alters which of the following quantities?
a) Enthalpy b) Activation energy c) Entropy d) Internal energy
8. H_2PO_4^- the conjugate acid of
a) PO_4^{3-} b) P_2O_5 c) H_3PO_4 d) HPO_4^{2-}
9. Zinc can be coated on iron to produce galvanized iron but the reverse is not possible. It is because
a) Zinc is lighter than iron b) Zinc has lower melting point than iron
c) Zinc has lower negative electrode potential than iron
d) Zinc has higher negative electrode potential than iron
10. colloidal gold is
a) gel b) emulsion c) solid sol d) sol
11. Picric acid is
a) Phenol b) 2,4,6 tri nitro phenol c) benzoic acid d) phenylacetic acid
12. Which one of the following reduces tollens reagent
a) methanoic acid b) methanal c) ethanal d) all the above
13. $\text{C}_6\text{H}_5\text{NO}_2 \xrightarrow{\text{Fe/HCl}} \text{A} \xrightarrow[\text{273K}]{\text{NaNO}_2/\text{HCl}} \text{B}$
a) $\text{C}_6\text{H}_5-\text{OH}$ b) $\text{C}_6\text{H}_5-\text{CH}_2\text{OH}$ c) $\text{C}_6\text{H}_5-\text{CHO}$ d) $\text{C}_6\text{H}_5\text{N}_2\text{Cl}$
14. The number of sp^2 and sp^3 hybridised carbon in fructose are respectively
a) 1 and 4 b) 4 and 2 c) 5 and 1 d) 1 and 5
15. Non stick cook wares generally have a coating of a polymer, whose monomer is
a) ethane b) prop-2-enenitrile
c) chloroethene d) 1,1,2,2-tetrafluoroethane

PART - II**Note:** Answer any Six questions. Question No.24 is compulsory.**6X2=12**

16. Give the uses of Boric acid.
17. Why fluorine is more reactive than other halogens?

KK/J/12/Che/1

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Kindly Send Me Question & Answer KEys to Us: padasalai@gmail.com

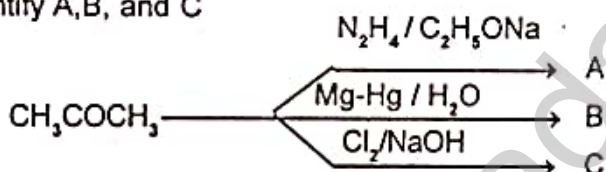
18. What are interstitial compounds?
19. Why ionic crystals are hard and brittle?
20. Define solubility product.
21. Write a note on acylation of anisole.
22. Aniline does not undergo Friedel – Crafts reaction why?
23. Classify the following into monosaccharides, oligosaccharides and polysaccharides.
i) Starch ii) fructose iii) cellulose iv) lactose v) Galactose
24. Calculate the standard emf of the cell: $\text{Cd}/\text{Cd}^{2+} // \text{Cu}^{2+}/\text{Cu}$ and determine the cell reaction. The standard reduction potentials of Cu^{2+}/Cu and Cd/Cd^{2+} are 0.34V and - 0.40 volts respectively. Predict the feasibility of the cell reaction.

PART - III

Note: Answer any Six questions. Questions No.33 is compulsory.

6x3=18

25. Explain the following terms with suitable examples.
i) Gangue ii) Slag
26. a) $\text{Mg} + \text{dil HNO}_3 \rightarrow ?$
b) $\text{Cu} + \text{conc. H}_2\text{SO}_4 \rightarrow ?$
c) $\text{MnO}_2 + \text{Conc. HCl} \rightarrow ?$
27. Transition metals show high melting points why?
28. Explain pseudo first order reaction with an example.
29. State Faraday's laws of electrolysis.
30. Write a note on electro osmosis.
31. How is carboic acid prepared from chloro benzene.
32. Give short notes on Gabriel phthalimide synthesis?
33. Identify A, B, and C



PART - IV

Note: Answer All the questions.

5X5=25

34. a) i) Explain froth floatation method.
ii) What is silicate? (OR)
- b) i) What is known as Holme's signal?
ii) Which strong reducing agent Cr^{2+} or Fe^{2+}
35. a) A Solution of $[\text{Ni}(\text{H}_2\text{O})_6]^{2+}$ is green, whereas a solution of $[\text{Ni}(\text{CN})_4]^{2-}$ is colorless explain.
(OR)
- b) Differentiate crystalline solids and amorphous solids.
36. a) i) Calculate the pH of 0.04 M HNO_3
ii) Give the characteristics of catalysis. (OR)
- b) Describe the construction of Daniel cell. Write the cell reaction.
37. a) i) How will you convert ethane-1,2 -diol to methanal.
ii) write short notes on saponification reaction. (OR)
- b) How will you prepare
i. Acetic anhydride from acetic acid ii. Cinnamic acid from benzaldehyde
iii. Acetaldehyde from ethyne
38. a) What are the functions of lipids in living organism? (OR)
- b) i) How is nylon 6,6 prepared? Mention its uses.
ii) How is neoprene prepared? Mention its uses.

KK/M. 12 / Che / 2