

COMMON FIRST REVISION TEST - 2023

Standard XII

Reg.No.

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CHEMISTRY

Part - I

Time: 3.00 hours

Marks: 70

15 x 1 = 15

I. Choose the correct answer:

1. Galena is
 - a) PbS
 - b) ZnS
 - c) Ag₂S
 - d) FeS
2. In diborane the number of electrons that accounts for banana bond is
 - a) six
 - b) four
 - c) two
 - d) three
3. Among the following which is the strongest oxidizing agent?
 - a) Cl₂
 - b) Br₂
 - c) F₂
 - d) I₂
4. The most common oxidation state of actinoids
 - a) +2
 - b) +4
 - c) +3
 - d) +6
5. A complex in which the oxidation number of the metal is zero is
 - a) K₄[Fe(CN)₆]
 - b) [Fe(Co)₅]
 - c) [Fe(CN)₃(NH₃)₃]
 - d) Both (b) & (c)
6. An example of metal defect
 - a) NaCl
 - b) CsCl
 - c) AgCl
 - d) FeS
7. The rate constant of a reaction is $5.8 \times 10^{-2} \text{ s}^{-1}$. The order of reaction is
 - a) first order
 - b) second order
 - c) zero order
 - d) third order
8. An example of basic buffer is
 - a) NH₄OH and NH₄Cl
 - b) NH₄OH and NaOH
 - c) NaOH and NH₄Cl
 - d) NaOH and KOH
9. Among the following cells
 - i) Leclanche cell
 - ii) Nickel-Cadmium cell
 - iii) Lead Storage battery
 - iv) Mercury cell
 Primary cells are
 - a) i and iv
 - b) iii and iv
 - c) i and iii
 - d) ii and iii
10. fog is colloidal solution of
 - a) solid in gas
 - b) liquid in gas
 - c) gas in gas
 - d) gas in liquid
11. On reacting with neutral Ferric chloride phenol gives
 - a) red colour
 - b) dark green colour
 - c) violet colour
 - d) no coloration
12. The reagent used to distinguish between acetaldehyde and benzaldehyde is
 - a) Tollens reagent
 - b) Fehling's solution
 - c) 2, 4-dinitrophenyl hydrazine
 - d) Semi Carbazite
13. The product formed by the reaction of aldehyde with a primary amine
 - a) carboxylic acid
 - b) aromatic acid
 - c) schiff's base
 - d) Ketone
14. In a protein, various amino acids linked together by
 - a) peptide bond
 - b) dative bond
 - c) α -glycosidic bond
 - d) β -glycosidic bond
15. Which of the following is an analgesic?
 - a) streptomycin
 - b) aspirin
 - c) chloromycetin
 - d) penicillin

Part - II

II. Answer any 6 questions. (Q.No.24 is compulsory)

6 x 2 = 12

16. What is inert pair effect?
17. Give any two difference between double salt and coordination compounds.

(2)

XII Chemistry

18. What are the uses of boric acid?
19. Draw the unit cells : a) FCC b) BCC
20. Distinguish between Lewis acid and Lewis base.
21. State Faraday's first law.
22. Write a note on electro osmosis.
23. How do antiseptics differs from disinfectants.
24. Draw the structure of zwitter ion.

Part - III**III. Answer any 6 questions. (Q.No.33 is compulsory)****6 x 3 = 18**

25. What are the differences between minerals and ores.
26. What are the reasons for the anomalous properties of first element of p-block.
27. What is Lanthanide contraction and what are the effects of Lanthanide contraction.
28. Write a note on Frenkel defect.
29. Write Arrhenius equation and explain the terms involved.
30. What is Henderson equation.
31. What are promoters and catalytic poison? Give example.
32. Write short notes on Gabriel phthalimide synthesis.
33. Convert glycerol to acrolein.

Part - IV**IV. Answer all the questions.****5 x 5 = 25**

34. a) i) Write short notes on zone refining. [3 m]
ii) Define slag flux. [2 m]
(OR)
- b) i) Explain the structure of Diborane. [3 m]
ii) Which is more stable Fe^{3+} or Fe^{2+} . Explain. [2 m]
35. a) Write the postulates of Werner's theory. [5 m]
(OR)
- b) i) Describe the preparation of potassium dichromate. [3 m]
ii) What is chromyl chloride test? Give equation. [2 m]
36. a) Distinguish between physisorption and chemisorption. [5 m]
(OR)
- b) i) Derive Ostwald's dilution law. [3 m]
ii) Write the cell representation of the galvanic cell in which the following reaction takes place
$$\text{Zn}_{(s)} + \text{CuSO}_4 \rightarrow \text{ZnSO}_4 + \text{Cu}_{(s)} \quad [2 \text{ m}]$$
37. a) Convert the following :
1) Phenol \rightarrow Picric acid 2) Glycol \rightarrow Dioxane [3 m]
3) What is Mustard oil reaction. [2 m]
(OR)
- b) Differentiate 1°, 2°, 3° alcohol by Victor Meyer method. [5 m]
38. a) Elucidate the structure of glucose. [5 m] (OR)
- b) i) What are drugs? How are they classified? [2 m]
ii) Write a note on vulcanization of rubber. [3 m]
