

SECOND REVISION EXAMINATION - 2024

Class : 12

Time : 3.00 Hrs.

CHEMISTRYReg.
No.

Max. Marks : 70

PART - I

I) Choose the correct Answer.

15 X 1 = 15

- Which one of the following ores is best concentrated by froth - flotation method :
a) Magnetite b) Hematite c) Galena d) Cassiterite
- Which of the following oxide is amphoteric?
a) SiO_2 b) SnO_2 c) CO_2 d) CaO
- Match the following .

1) XeF_2 - i) Square planar	a) (1) - iii	(2) - i	(3) - iv	(4) - ii
2) XeF_4 - ii) Square pyramidal	b) (1) - iv	(2) - iii	(3) - i	(4) - ii
3) XeF_6 - iii) Linear	c) (1) - iii	(2) - i	(3) - ii	(4) - iv
4) XeOF_4 - iv) Distorted Octahedron	d) (1) - iv	(2) - iii	(3) - ii	(4) - i
- How many moles of I_2 are liberated when 1 mole of potassium dichromate react with potassium iodide?
a) 1 b) 2 c) 3 d) 4
- A magnetic moment of 1.73 BM will be shown by one among the following
a) TiCl_4 b) $[\text{CoCl}_6]^{4-}$ c) $[\text{Cu}(\text{NH}_3)_4]^{2+}$ d) $[\text{Ni}(\text{CN})_4]^{2-}$
- The radius of an atom is 300pm if it crystallizes in a face centered cubic lattice, the length of the edge of the unit cell is
a) 488.5 pm b) 848.5 pm c) 884.5 pm d) 484.5 pm
- The addition of a catalyst during a chemical reaction alters which of the following quantities?
a) Enthalpy b) Entropy c) Internal Energy d) Activation energy
- The pH of 10^{-5} M KOH Solution will be
a) 9 b) 5 c) 19 d) 7
- An increase in equivalent conductance of a strong electrolyte with dilute dilution is mainly due to
a) Increase in number of ions b) Increase in ionic mobility of ions
c) 100% ionisation of electrolyte at normal dilution
d) Increase in both number of ions and ionic mobility of ions
- The phenomenon observed when a beam of light is passed through a colloidal solution is
a) Cataphoresis b) Electro phoresis c) Coagulation d) Tyndall effect
- Which one of the following is the strongest acid?
a) 2-nitrophenol b) 4- chlorophenol c) 4- nitrophenol d) 3-nitrophenol
- Which one of the following reduces tollens reagent.
a) formic acid b) acetic acid c) benzophenone d) none of these
- Which of the following reagent can be used to convert nitrobenzene to aniline
a) Zn Hg/ NaOH b) Sn/ HCl c) LiAlH_4 d) All of these
- Which one of the following vitamin is water soluble?
a) Vitamin A b) Vitamin E c) Vitamin k d) Vitamin B
- Terylene is a example for
a) Polyamide b) Polythene c) Polyester d) Polysaccharide

PART - II

II) Answer any six questions. Q.No24 is Compulsory.

6 X 2 = 12

- Give the basic requirement for vapour phase refining
- Write the uses of Argon.
- Explain schottky defect.
- Define Solubility product.
- Addition of alum purifies water why?

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PG Asst in Chemistry

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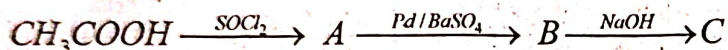
21. Write Rosenmund's reduction reaction.
22. How will you convert nitrobenzene into 1, 3, 5 - trinitrobenzene
23. Write the zwitter ion structure of alanine
24. $[\text{Ti}(\text{H}_2\text{O})_6]^{3+}$ is Coloured , while $[\text{Sc}(\text{H}_2\text{O})_6]^{3+}$ is colourless Explain.

PART - III

III) Answer any Six questions. Q.No.33 is Compulsory.

6 X 3 = 18

25. Explain the following terms with suitable example i) Gangue ii) slag
26. What are the uses of silicons.
27. Write chromyl chloride test.
28. Derive integrated rate law for a zero order reaction $A \rightarrow \text{product}$.
29. State faraday's law of electrolysis
30. Give three uses of emulsions
31. Write the synthesis of ether by Williamson's Synthesis.
32. What are antibiotics?
33. Identify A, B, and C for the following reactions .



PART -IV

IV) Answer all the questions.

5X5 = 25

34. a) i) Give reason for the anomalous properties of nitrogen. 2
- ii) Mention the properties of interhalogen compounds. 3
- (OR)
- b) i) What is catenation? Write the conditions for catenation. 3
- ii) What are interstitial compounds? 2
35. a) Compare Lanthanides and Actinides 5
- (OR)
- b) Write the postulates of werner's theory. 5
36. a) i) What are covalent solids? 2
- ii) Calculate the percentage efficiency of packing in case of body centered cubic crystal. 3
- (OR)
- b) i) Explain pseudo first order reaction with an example 3
- ii) Define half life period of a reaction 2
37. a) Derive Henderson equation. 5
- (OR)
- b) i) How phenolphalein prepared from phenol 3
- ii) Write kolbe's Electrolytic decarboxylation reaction. 2
38. a) Write short note on. 1) Carbylamine 2) Gomberg reaction 3) Diazotisation reaction 5
- (OR)
- b) i) Write a note on denaturation of proteins. 2
- ii) Write the preparation of Nylon - 6, 6 3
