

## Common Revision Exam – 2023

Standard – XII

CHEMISTRY

Reg.No. :

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Time : 3.00 hrs

**PART - I****Choose and write the correct answer :****15 × 1 = 15**

- Zinc is obtained from ZnO by..?
  - Carbon reduction
  - Reduction using Silver
  - Electro chemical process
  - Acid Leaching
- Which of the following plot gives Ellingham diagram..?
  - $\Delta S$  Vs T
  - $\Delta G^0$  Vs T
  - $\Delta G^0$  Vs  $\frac{1}{T}$
  - $\Delta G^0$  Vs  $T^2$
- The metal oxide which cannot be reduced to metal by carbon is...?
  - PbO
  - Al<sub>2</sub>O<sub>3</sub>
  - ZnO
  - FeO
- The basic structural unit of Silicates is...?
  - (SiO<sub>3</sub>)<sup>2-</sup>
  - (SiO<sub>4</sub>)<sup>2-</sup>
  - (SiO)<sup>-</sup>
  - (SiO<sub>4</sub>)<sup>4-</sup>
- Which among the following is not a borane ?
  - B<sub>2</sub>H<sub>6</sub>
  - B<sub>3</sub>H<sub>6</sub>
  - B<sub>4</sub>H<sub>10</sub>
  - None of these
- Among the following which is the strongest oxidizing agent ?
  - Cl<sub>2</sub>
  - F<sub>2</sub>
  - Br<sub>2</sub>
  - I<sub>2</sub>
- When Copper is heated with Conc.HNO<sub>3</sub> it produces...
  - Cu(NO<sub>3</sub>)<sub>2</sub> , NO & NO<sub>2</sub>
  - Cu(NO<sub>3</sub>)<sub>2</sub> & N<sub>2</sub>O
  - Cu(NO<sub>3</sub>)<sub>2</sub> & NO<sub>2</sub>
  - Cu(NO<sub>3</sub>)<sub>2</sub> & NO
- Solid CO<sub>2</sub> is an example of ..?
  - Covalent Solid
  - Metallic Solid
  - Molecular Solid
  - Ionic Solid
- The vacant space in BCC Lattice unit cell is..?
  - 48%
  - 23%
  - 32%
  - 26%
- The addition of a catalyst during a chemical reaction alters which of the following quantities?
  - Enthalpy
  - Activation energy
  - Entropy
  - Internal energy
- If 75% of a first order reaction was completed in 60 min , 50% of the same reaction under the same conditions would be completed in...?
  - 20min
  - 30min
  - 35min
  - 75min
- On reacting with neutral ferric chloride , Phenol gives ...?
  - Red colour
  - Violet colour
  - Dark green colour
  - No colouration
- (CH<sub>3</sub>)<sub>3</sub> – C – CH(OH)CH<sub>3</sub>  $\xrightarrow{\text{Conc. H}_2\text{SO}_4}$  X ( Major Product ).
  - (CH<sub>3</sub>)<sub>3</sub> – C – CH=CH<sub>2</sub>
  - (CH<sub>3</sub>)<sub>2</sub> – C =(CH<sub>3</sub>)<sub>2</sub>
  - CH<sub>2</sub> = C(CH<sub>3</sub>)CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>
  - None of these
- Which one of the following undergoes reaction with 50% Sodium hydroxide solution to give the corresponding alcohol and acid...?
  - Phenyl methanal
  - Ethanal
  - Ethanol
  - Methanol
- The formation of cyanohydrin from acetone is an example of....?
  - Nucleophilic substitution
  - Electrophilic substitution
  - Electrophilic addition
  - Nucleophilic addition

**PART – II****Answer any Six questions. ( Question No. 23 is Compulsory ) :-****6 × 2 = 12**

16. Give the limitations of Ellingham diagram?
17. Give the structure of CO and CO<sub>2</sub> ?
18. What is inert pair effect ?
19. Write the Bragg's equation ?
20. Calculate the number of atoms in a FCC ?
21. Define half life of a reaction?
22. How is ethane-1,2-diol prepared from ethane ?
23. How will you get P –hydroxy azo benzene from Phenol ?
24. Write the decarboxylation reaction ?

**PART – III****Answer any Six questions. ( Question No. 32 is Compulsory ) :-****6 × 3 = 18**

25. Describe a method for refining Nickel ?
26. How will you convert Boric acid to Boron nitride ?
27. Give the uses of Helium ?
28. Explain Schottky defect..?
29. Explain Pseudo first order reaction with an example ?
30. Differentiate Order of a reaction and Molecularity of a reaction ?
31. Write the test for Phenol ?
32. Identify A , B , C and D ? ethanoic acid  $\xrightarrow{\text{SOCl}_2}$  A  $\xrightarrow{\text{Pd/BaSO}_4}$  B  $\xrightarrow{\text{NaOH}}$  C  $\xrightarrow{\Delta}$  D
33. How will you get Benzaldehyde from Benzene ..?

**PART – IV****Answer all the Questions:-****5 × 5 = 25**

34. a) Explain Zone refining Process ? b) What is Auto reduction ? Give example ? ( OR )  
Write the Silicones Preparation , Structure and Uses ?
35. Describe the Structure of Diborane ? ( OR )  
a) What are interhalogen compounds? b) What is Holmes Signal ?
36. Calculate the percentage efficiency of packing in case of body Centered Cubic Crystal ? ( OR )  
Derive integrated rate law for first order reaction.?
37. How is the following prepared from Phenol ? i) Phenolphthalein ii) Salicylaldehyde iii) Picric acid ( OR )  
a) Write short note on Auto oxidation of ethers? b) What is Williamson's Synthesis?
38. a) Write the Cannizzaro reaction ? b) What is Urotropine ? Write the Structure and Uses? ( OR )  
Write the following reaction :- a) Esterification b) Claisen Condensation.

**Kindly send me your questions and answerkeys to us : Padasalai.Net@gmail.com**