

FML

## FIRST MID TERM TEST - 2024

12- Std

CHEMISTRY

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Time : 1.30 HR

SALEM

MARKS: 40

10 X 1 = 10

1 Answer all the question.

- Carbolic acid is
  - Phenol
  - Picric acid
  - Benzoic acid
  - Phenyl acetic acid
- Williamson synthesis & preparing dimethyl ether is
  - SN<sup>1</sup> reaction
  - SN<sup>2</sup> reaction
  - Electrophilic addition
  - Electrophilic Substitution.
- The rate constant of a reaction is  $5.8 \times 10^{-2} \text{ S}^{-1}$ . The order of the reaction is
  - First order
  - Zero order
  - Second order
  - Third order
- The crystal with a metal deficiency defect is
  - NaCl
  - Zno
  - KCl
  - Feo
- Which among the following plot gives Ellingham diagram?
  - $\Delta S \text{ Vs } T$
  - $\Delta G^\circ \text{ Vs } \frac{1}{T}$
  - $\Delta G^\circ \text{ Vs } T$
  - $\Delta G^\circ \text{ Vs } T^2$
- 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>2</sub>H<sub>10</sub>
  - None of these
- Most easily liquefiable gas is
  - Ar
  - Ne
  - He
  - Kr
- Half life period for First order reaction
  - $t_{1/2} = \frac{2.303}{K}$
  - $t_{1/2} = \frac{K}{2.303}$
  - $t_{1/2} = \frac{0.6932}{K}$
  - $t_{1/2} = \frac{K}{0.6932}$
- Which of the following is used as the source of gamma rays?
  - Xe
  - Rn
  - Ar
  - Kr
- Duralumin is an alloy of
  - Cu, Mn
  - Cu, Al, Mg
  - Al, Mn
  - Al, Cu, Mn, Mg

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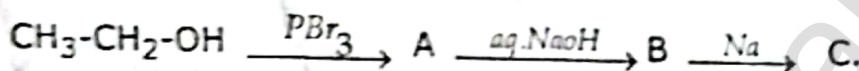


II Answer any three only. Answer Q No: 15 is Compulsory. 3 X 2 = 6

11. Give the basic requirements for Vapour phase refining.
12. Give a reason to support that Sulphuric acid is a dehydrating agent. With suitable example
13. What are point defects.
14. Give two examples for Zero order Reaction
15. Write the preparation of Picric acid.

III Answer any Three only. Answer Q NO :20 is compulsory.

16. Write Arrhenius equation and explain the terms.
17. Write any three characteristic of Ionic crystals.
18. Write the uses of Helium.
19. What is Auto reduction? Give examples.
20. Complete the following reaction



IV Answer all the questions.

3 X 5 = 15

21. a) Explain Froth- flotation process.  
(OR)
- b) (i) How is Phenolphthalein prepared from Phenol.  
(ii) Write the uses of diethyl ether
22. (a) Derive integrated rate equation of first order reaction  $\text{A} \longrightarrow \text{product}$   
(OR)
- (b) What are interhalogen compounds. Write the properties of their halogen compounds.
23. (a) (i) What is Phosgene? How is it Prepared.  
(ii) What is Inert pair effect  
(OR)
- (b) (i) Define unit cell  
(ii) Write Bragg equation and explain the terms.