TVM 19.11.24

SECOND MID-TERM EXAMINATION—NOVEMBER 2024

11 - STD **CHEMISTRY**

TIME: 1 Hr. 30 mts MAX. MARKS: 35

PART-I

Choose the best answer. (10 x 1 = 10)

1. Which of the following compounds will not evolve H_2 gas on reaction with alkali metals?
   a) ethanoic acid b) ethanol c) Phenol d) none of these
2. RbO_2 is
   a) Superoxide and paramagnetic b)Peroxide and diamagnetic c) Superoxide and diamagnetic d) Peroxide and paramagnetic
3. In which process fused sodium hydroxide is electrolysed for extraction of sodium?
   a) Castner's Process b)Cyanide Process c) Down Process d) All of these.
4. Which one of the following is called as "Desert Rose"?
   a) Gypsum b) Plaster of Paris c)slaked lime d) Soda ash
5. Which one of the following is incorrect for ideal solution
   (a) $\Delta H_{mix} = 0$ (b) $\Delta U_{mix} = 0$ (c) $\Delta P = P_{Observed} - P_{Calculated\ by.\ raoults\ law} = 0$ (d) $\Delta G_{mix} = 0$
6. Osmotic Process (Π) of a solution is given by the relation
   a) $\Pi = nRT$ b)$\Pi V = nRT$ c)$nRT = n$ d) none of these.
7. Normality of 1.25 M sulphuric acid is
   a) 1.25 N b) 3.75 N c) 2.5 N d) 2.25 N
8. The general formula for alkanes
   a) C_nH_n b) $C_n H_{2n}$ c) $C_n H_{2n-2}$ d) $C_n H_{2n+2}$
9. $C_2H_5Br + 2\ Na \xrightarrow[ether]{dry} C_4H_{10} + 2NaBr$. This reaction is an example of which of the following
   a) Reimer Tiemann reaction b) Wurtz reaction c) Aldol condensation d)Hoffmann reaction.
10. Which of the following compounds will not undergo Friedal –Crafts reaction easily ?
    a) Nitrobenzene b) Toluene c) Cumene d) Xylene

PART – II

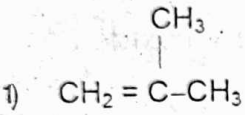
ANSWER ANY THREE questions.(Question No.15 is compulsory) (3 X 2 = 6)

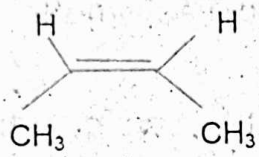
11. Write distinctive behaviour of lithium.
12. How is plaster of paris is prepared?
13. Define Henry's law.
14. Define the term isotonic solution
15. Write Friedel-Craft's Acetylation

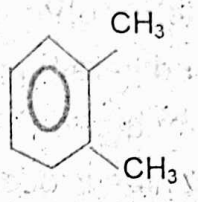
PART –III

ANSWER ANY THREE QUESTIONS. (Question No.20 is compulsory) (3 X 3 = 9)

16. Discuss any three similarities between Beryllium and Aluminium
17. Define Huckel's rule.
18. Explain Markownikoff's rule with suitable example.
19. What is Osmosis?
20. Give IUPAC names of the following hydrocarbons

1) 

2) 

3) 

PART –IV

ANSWER ALL QUESTIONS. (2 X 5 = 10)

21. a)Give the uses of gypsum.

[OR]

a) Describe briefly the biological importance of sodium and potassium.

22. a) (i) Write short notes on Wurtz-Fitting reaction.

(ii) Define Rauott's law

[OR]

a) Explain the structure of benzene.