Class : 11

Register Number

SECOND MID TERM TEST - NOVEMBEER - 2022

Time Allowed : 1.30 Hours]

CHEMISTRY

PART – A

[Max. Marks : 50

10 X 1 = 10

I. Answer all the questions.

1. Sodium salts gives _____ colour to the flame.
   a) Crimson red   b) blue   c) yellow   d) violet

2. _____ is called baking soda.
   a) $NA_2CO_3.10 H_2O$ b) $NaCl$ c) $NaHCO_3$ d) HNO_3

3. The Van't Hoff factor (i) for a dilute aqueoussolution of the strong elecrolyte barium hydroxide is _____
   a) 0   b) 1   c) 2   d) 3

4. Which of the following can be used as the halide component for friedal - craftsreaction?
   a) Chloro benzene   b) Bromo benzene   c) chloroethane   d) isoprophyl chloride

5. Which of the following is optically active?
   a) 2 - methyl pentane   b) Citric acid
   c) Glycerold   d) none of these

6. Which among the following alkeneson reductive ozonolysis produce only propane?
   a) 2 - methyl propene   b) 2 - methyl but - 2- ene
   c) 2,3 - Dimethyl but - 1 - ene   d) 2,3 - Dimethyl but - 2 - ene

7. Which one of the following gases has the lowest value of Henry's law contstant?
   a) N_2 b) He   c) CO_2 d) H_2

8. Which of the following has highest hydration energy?
   a) $MgCl_2$ b) $CaCl_2$ c) $BaCl_2$ d) $SrCl_2$

9. **Assertion :** Generally alkali and alkaline earth metals form superoxides.
   Reason : There is a single bond between O and O in superoxides.
   a) Both assertion and reason are true and reason is the correct explanation of assertion
   b) Both assertion and reason are true but reason is not the correct explanation of assertion
   c) assertion is true but reason is false
   d) Both assertion and reason are false

10. Cyclopentadiene is a / an ------ compound.
    a) aromatic   b) non - aromatic   c) anti - aromatic   d) alicyclic

PART – B

5 X 2 = 10

II. Answer any 5 questions. Question number 17 is compulsory. Answer any 4 from the remaining.

11. Why gypsum is referred to as 'desert rose'?

12. How will you identify the unsaturated hydrocarbons?

V/ 11 / Che / 1

13. Define the term 'isotonic solution'.

14. Find the molality of the solution containing 45 g of glucose dissolved in 2 kg of water.

15. Write note on anomalous nature of Lithium.

16. What is osmosis?

17. Draw the structural formula for 4,5 - diethyl - 3,4,5 - trimethyl octane.

<div align="center">PART – C   5 X 3 =15</div>

III. Answer any 5 questions. Question number 24 is compulsory. Answer any 4 from the remaining.

18. Explain Markovnikov's rulde with an example.

19. Define (i) Molarity (ii) Normality

20. Write Dow's process.

21. Explain the effects of pressure on the solubility.

22. Give the uses of gypsum.

23. Differnetiate Ideal and non - ideal solution.

24. 0.24 g of a gas dissolves in 1 L of water at 1.5 atm pressure. Calculate the amount of dissolved gas when the pressure is raised to 6 atm at constant temperature.

<div align="center">PART – D   3 X 5 =15</div>

IV. Answer all the questions.

25. a. State Henry's lawand explain its limitations.

<div align="center">(or)</div>

  b. Explain the structural elucidation of Benzene.

26. a. i. Discuss the similarities between beryllium and aluminium. (3)

   ii. Write Birch reduction (2)

<div align="center">(or)</div>

  b. i. How will you prepare Lindane? Write its use? (3)

   ii. State Raoult's law (2)

27. a. **Write the following reactions.**

   i. Friedel Craft's acetylation (3)

   ii. Wurtz reaction (2)

<div align="center">(or)</div>

  b. i. How is plaster of paris prepared? Write its uses. (3)

   ii. Write Huckel's rule (2)

<div align="right">V / 1I/ Che / 2</div>