MODEL QUESTION PAPER
CHEMISTRY – Paper II

Time : 3 Hours   Max Marks : 60

Section – A

(Very short Answer type)   10x2=20 Marks

      i)   Answer all questions.
      ii)   Each question carries 2 marks.

1. What happens when Ammonia reacts with excess of chlorine ?

2. Ferrous salts are more unstable than Ferric salts Why ?

3. Give the names and compositions of any two alloys.

4. Define the boiling point of a liquid in terms of its Vapour pressure.

5. What is Nermst Equation ? Explain the terms.

6. What are Isodiaphers ? Give an example ?

7. Define Emulsion ? Give an example

8. What is Williamson's Synthesis ? Give an Example

9. What are the central metal ions in Hemoglobin and   vitamin B_{12} ? Mention their Oxidation states.

10. Write about the preparation of Paracetamol.

Section – B

(Short Answer Type)   6 x 4 = 24 marks

      i)   Answer any SIX of the following Questions.
      ii)   Each Question carries 4 marks.

11. Write the reaction of Sodium Thoisulphate with a) Iodine and b) Silver Nitrate.   Give equations.

12. Define Raoult's Law. At 50°C the vapour pressure of H_2O is 92 mm. The vapour pressure of a solution containing 18.1 gm. of non-volatile solute in 100 ml of water at the same temperature is 87 mm. Find the molecular weight of the solute.

13. What is an acid base indicator ? Give two examples. Which type of acid base titration uses methyl orange as indicator ?

14. What is meant by PH ?

    What is the PH of a buffer formed by mixing 20 ml of 0.1 M NH_4 D AND 2 ML OF 0.1M NH_4OH.

    (PK_b for $NH_4OH = 4.8$)

15. Define the terms order and Molecularity of the reaction. Given one example each for first and second order reactions.

16. State Faraday's first law of electrolysis, A current of 10 amp. Is passed through molten $AlCl_3$ for 96.5 seconds. Calculate the mass of Aluminum deposited at the cathode.

    (Atomic weight of $Al = 27$)

17. What is group displacement ? Illustrate with an example.

18. What is group autocatalysis ? Illustrate with an example

Section – C

(Eassy Type Question) $2 \times 8 = 16$ Marks

   i) Answer any TWO of the following Questions.
   ii) All Questions carry 8 marks each.

19. Give one method of preparation of ozone. Write two oxidizing and two reducing properties of ozone with equations.

20.   State the Law of Mass action derive the equation for K_c of
        the following reversible reaction.

        $a A + b B = c C + d D$

    Mention the relation between K_c and K_p

21.   Write any two methods of preparation of Aniline with
        equation. How does Aniline react with   a) Nitrous acid and
        b) Chloroform in the presence of   alcoholic KOH.

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