0223

C

Total No. of Questions – 21 **Regd. No.**

Total No. of Printed Pages - 2

Part – III
CHEMISTRY, Paper-II
(English Version)

Time : 3 Hours] **[Max. Marks : 60**

Note : Read the following instructions carefully :

(i) Answer **all** the questions of Section – **A**. Answer any **six** questions in Section – **B** and any **two** questions in Section – **C**.

(ii) In Section – **A**, questions from Sr. Nos. **1** to **10** are of "Very Short Answer Type". Each question carries **two** marks. Every answer may be limited to **two** or **three** sentences. Answer **all** these questions at one place in the same order.

(iii) In Section – **B**, questions from Sr. Nos. **11** to **18** are of "Short Answer Type". Each question carries **four** marks. Every answer may be limited to **75** words.

(iv) In Section – **C**, questions from Sr. Nos. **19** to **21** are of "Long Answer Type". Each question carries **eight** marks. Every answer may be limited to **300** words.

(v) Draw labelled diagrams wherever necessary for questions in Sections – **B** and **C**.

SECTION – A
10 × 2

Note : Answer **all** the questions :

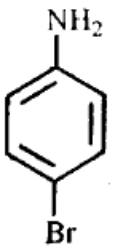
1. State Raoult's Law.
2. State Faraday's Law
3. Write ores with formulae of the following metals :
   (i) Aluminium (ii) Iron
4. What is Lanthanoid contraction ?
5. What are Polymers ? Give example.
6. What is vulcanization of rubber ?
7. What are antacids ? Give example.
8. What is tincture of iodine ? What is its use ?
9. What are Enantiomers ?
10. What are ambident nucleophiles ?

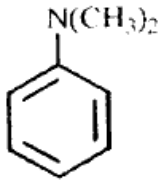
SECTION – B

$6 \times 4 = 24$

Note : Answer any **six** questions :

11. Derive Bragg's equation.
12. Define molarity. Calculate the molarity of a solution containing 5 g of NaOH in 450 ml solution.
13. What are different types of adsorption ? Give any four differences between characteristics of these different types.
14. Explain the purification of sulphide ore by Froth floatation method.
15. Explain the terms :
    (a) Ligand (b) Co-ordination number
    (c) Co-ordination entity (d) Central metal atom/ion
16. How are XeF_2 and XeF_4 prepared ? Give their structure.
17. What are hormons ? Give one example for each.
    (a) Steroid hormone
    (b) Polypeptide hormones and
    (c) Amino acid derivatives.
18. Write the IUPAC names of the following compounds :
    (a) $NH_2 - CH_2 - CH = CH_2$ (b) $C_2H_5 - N(C_2H_5) - CH_2 - CH_2 - CH_2 - CH_3$

    (c) 

    (d) 

SECTION – C

$2 \times 8 =$

Note : Answer any **two** questions :

19. (a) What are Galvanic Cells ? Explain the working of a galvanic cell with a neat sketch taking Daniel cell as example.
    (b) What are fuel cells ? Give the construction of H_2, O_2 fuel cell.
20. (a) How is Ammonia manufactured by Haber's Process ?
    (b) How does Ozone reacts with the following :
    (i) PbS (ii) KI (iii) Hg (iv) Ag
21. Explain the following reactions with equations :
    (i) Hell-Volhard-Zelinsky reaction (HVZ)
    (ii) Decarboxylation
    (iii) Aldol condensation
    (iv) Gatterman-Koch reaction