

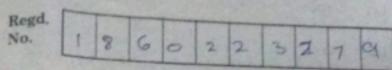
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B

Total No. of Questions - 21

Total No. of Printed Pages - 2



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

Max. Marks: 60

Time: 3 Hours

Note: Read the following instructions carefully.

- 1) Answer all questions of Section 'A'. Answer any six questions in Section 'B' and any two questions in Section 'C'.
- 2) 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 2 or 3 sentences. Answer all these questions at one place in the same order.
- 3) 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.
- 4) 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.
- Draw labelled diagrams wherever necessary for questions in Sections 'B' and 'C'.

SECTION A

 $10 \times 2 = 20$

Note: Answer all questions.

- .1. State Raoult's law.
- . 2. State Faraday's second law of electrolysis.
 - 3. What is PHBV? How is it useful to man?
- . 4. Write the names of the monomers for the following polymers.
 - a) Bakelite
- b) Nylon 6, 6
- 5. What is a ligand? Give one example for unidentate ligand.
- . 6. What are the neutral oxides of nitrogen?
 - 7. What happens when Cl2 reacts with dry slaked lime?
 - 8. What is blister copper? Why is it so called?
 - 9. Explain carbylamine reaction with an example.
 - 10. Explain the reaction of Aniline with Nitrous acid.



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 $6 \times 4 = 24$

SECTION B

Note: Answer any six questions.

- 11. Explain Schottky and Frenkel defects.
- .12. Define mole fraction. Calculate the mole fraction of H_2SO_4 in a solution containing 98% (w/w) H_2SO_4 by mass.
- 13. What are emulsions? How are they classified? Give one example for each.
 - -14. Explain calcination and roasting with suitable examples.
 - 15. Explain Werner's theory of coordination compounds with suitable examples.
 - 16. What are hormones? Give one example for each of the following :
 - a) Steroid hormones b)
 -) Polypeptide hormones
 - c) Amino acid derivatives
 - 17. What are analgesics? How are they classified? Give one example for each.
 - 18. Explain S_N^1 and S_N^2 reactions with an example.

SECTION C

 $2 \times 8 = 16$

Note: Answer any two questions.

- 19. a) What are Galvanic cells? Explain the working of a Galvanic cell by taking Daniel cell as example.
 - b) Describe the salient features of the collision theory of reaction rates.
- 20. a) Write the important reactions involved in the manufacture of sulphuric acid by 'contact process'.
 - b) Write the preparation of the compounds XeF₂ and XeF₄. Give their structures.
- 21. Explain the following reactions with equations.
 - a) Kolbe's reaction
 - b) Riemer Tiemann reaction
 - c) Williamson's ether synthesis
 - d) HVZ reaction