22UPBAT3003

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Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

## Section B

Answer any **SIX** questions  $(6 \times 5 = 30 \text{ Marks})$ 

- 1. Show with suitable examples about the care to be taken in handling acids and toxic chemicals.
- 2. Sketch and explain the geometry of ethylene molecule.
- 3. Define Molarity, Molality and Normality.
- 4. Differentiate DNA and RNA.
- 5. Briefly explain the tests for proteins.
- 6. How peptide linkage is formed?
- 7. Explain fractional distillation.
- 8. Write Henderson-Hasselbalch equation and its significance.

## Section C

Answer any **THREE** questions  $(3 \times 10 = 30 \text{ Marks})$ 

- 9. Explain in detail about different types of errors and how to eliminate or minimize the errors.
- 10. a. Classify different types of bonds.
  - b. Sketch the structure of haemoglobin and explain its functions.
- 11. Discuss the principle, preparation and uses of buffer solutions.
- 12. Explain the open chain structure of glucose with reactions supporting it.
- 13. a. How are amino acids classified?
  - b. Explain the secondary structure proteins.

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