22UPHAT2002

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN (AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC) Chromepet, Chennai - 600 044.

B.Sc. Physics - END SEMESTER EXAMINATIONS APRIL - 2024 SEMESTER - II

22UPHAT2002 - Chemistry For Physics II

Total Duration: 2 Hrs. 30 Mins. Total Marks: 60

Section B

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

- 1. Illustrate Hess's law and its applications.
- 2. Write a note on corrosion inhibitors.
- 3. Differentiate Thermoplastics and thermosetting plastics.
- 4. Classify different types of carbohydrates.
- 5. Write a note on replication of DNA.
- 6. What are non-reducing sugars? Give example?
- 7. Explain the preparation of PVC? List its uses.
- 8. State first law of thermodynamics and the need for second law of thermodynamics.

Section C

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

- 9. With a neat sketch, explain carnot's cycle and calculation of efficiency of heat engine.
- 10. a. Explain Electrochemical corrosion.
 - b. What is meant by cathodic protection?
- 11. Explain the synthesis and applications of (i) phenol formaldehyde resin (ii) Nylon.
- 12. Discuss the open chain structure of Glucose.
- 13. What are Nucleic acids? Explain the components present in it?
