

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 2025

SEMESTER -II

22UPHAT2002 - Chemistry for Physics -II

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

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

1. Discuss how is hydraulic leaching helpful in the concentration of an ore.
2. Explain the process of zone refining in the purification metals.
3. Discuss the need for second law of thermodynamics and state the second law of thermodynamics.
4. Define heat of neutralisation and heat of combustion with an example.
5. Classify the types of corrosion with an example each.
6. Explain the synthesis of
(i) Polyacrylonitrile (ii) Epoxide resins
7. Differentiate
(i) Reducing and non-reducing sugars (ii) DNA and RNA
8. Explain the terms
(i) DNA replication and (ii) transcription

Section C

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

9. Elaborate the metallurgy of Titanium.
10. Illustrate various processes involved in the Carnot's cycle .
11. Describe the various measures used to protect corrosion.
12. Explain the synthesis and application of
(i) Neoprene (ii) Nylon (iii) Phenol formaldehyde (iv) Buna-N Rubber
13. Discuss the open chain structure of glucose.
