

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

20UPHAT2002 - Allied Chemistry -II

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

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

1. Sketch the classification flowchart of carbohydrates with examples.
2. Explain the causes and treatment of diabetes.
3. Highlight the uses of silicones.
4. State the Grotthus-Draper's law and Stark-Einstein's law.
5. State and explain common ion effect.
6. Explain the preparation and uses of urea.
7. Differentiate DNA from RNA.
8. Derive Henderson equation.

Section C

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

9. a) Explain the open-chain structure of glucose. (5)
b) List the biological functions of proteins. (5)
10. Define the following terms with example.
(i) Analgesics (ii) Antipyretics
(iii) Tranquilizers (iv) Sedatives (v) Analgesics
11. Give the composition and uses of the following
(i) Producer gas (ii) Oil Gas (iii) Natural gas
(iv) Water gas (v) Carburetted water gas
12. (a) Explain the following terms with example. (5)
(i) Photosensitisation (ii) Chemiluminescence
(b) Write the differences between fluorescence and phosphorescence. (5)
13. Discuss the working of any two reference electrodes with neat sketch.
