

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

**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. What are called carbohydrates? Mention their classification.
2. Write a short note on DNA and RNA.
3. Define 'antipyretics' and 'Sedatives'. Give an example for each one.
4. Mention the composition and uses of natural gas and water gas.
5. Write down the preparation and uses of urea and super phosphate.
6. State the two photochemical laws viz Grotthus-Draper's law and Stark-Einstein's law.
7. Explain the photochemical reaction between  $H_2$  and  $Cl_2$ .
8. Write a note on common ion effect, buffer solution and pH.

### Section C

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

9. a) How will you convert glucose into fructose. (5)  
b) Explain the synthesis of glycine using Gabriel-Phthalimide synthesis. (5)
10. Describe the causes and treatment of diabetes and AIDS.
11. Explain the synthesis, properties and uses of silicones.
12. Define the following terms and give an example.  
a) Phosphorescence b) Fluorescence c) Chemiluminescence d) Photo-Sensitization
13. a) Discuss about the strong and weak electrolyte with an example. (5)  
b) Explain the functioning method of calomel electrode with diagram. (5)

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