

**SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)**
(affiliated to the University of Madras and accredited with 'A+' Grade by NAAC) Chromepet,
Chennai — 600 044.

**B.Sc. END SEMESTER EXAMINATION APRIL/NOV - 2021
SEMESTER - II
08UPHAT2AC2 & UPHAT2AC2 - Allied Chemistry -II**

Total Duration : 3 Hrs	Total Marks : 75
MCQ : 30 Mins	MCQ : 15
Descriptive : 2 Hrs.30 Mins	Descriptive : 60

Section B

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

1. Give the open chain structure and explain any three reactions of glucose.
2. Write short notes on "Biological functions of proteins".
3. Give the composition and any two uses of the following.
(i) Natural gas (ii) Water gas (iii) Producer gas
4. Explain the preparation and properties of urea.
5. Write a note on "NPK fertilizers".
6. Explain Grotthus-Draper's law and Stark-Einstein's law of photochemical equivalence.
7. State and explain common-ion effect with an example.
8. Define standard electrode potential and EMF. Write a cell representation for a standard reference cell.

Section C

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

9. Discuss the causes and treatment for diabetes and cancer.
10. Define the following with an example for each.
(i) Antipyretics (ii) Tranquilisers (iii) Sedatives (iv) Hypnotics (v) Local anaesthetics
11. Discuss the synthesis, properties and uses of silicones.
12. (a) Differentiate chemiluminescence and photosensitization with example. (5)
(b) How is Calomel electrode working? Explain with cell diagram. (5)
13. (a) Discuss the properties and structures of sucrose. (5)
(b) Explain the preparation and uses of triple superphosphate. (5)