

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.(NFSMD) - END SEMESTER EXAMINATIONS APRIL-2023

SEMESTER - I

20UFMAT1001 - ALLIED CHEMISTRY-I

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

Section B

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

1. a) Illustrate the common ion effect with an example. (3)
b) Define pH (2)
2. Give a brief account on water gas production.
3. Discuss the hybridisation of methane.
4. What is a heterocyclic compound? Give any one method to prepare pyrrole.
5. Explain the laws of photochemistry.
6. Describe the importance and uses of inorganic fertilizers.
7. a) What is meant by quantum yield? (2)
b) How are ultraviolet light and chlorine used for purification of water? (3)
8. Contrast between the elimination and condensation reactions.

Section C

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

9. Discuss in detail about the buffer action in biological systems.
10. a) Difference between temporary and permanent hardness. (4)
b) Discuss the reverse osmosis in purification of water.(6)
11. a) Describe the electrophilic substitution reaction mechanism in benzene. (8)
b) Differentiate the Electrophiles from Nucleophiles (2)
12. a) Explain in detail about the preparation and properties of Furan. (6)
b) Mention the applications of the heterocyclic compound? (4)
13. a) Compare and Contrast between the photosynthesis and photosensitization.(5)
b) Compare and Contrast between the phosphorescence and fluorescence. (5)
