

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 NOVEMBER -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. Explain common-ion effect with suitable examples.
2. Write the Preparation of Superphosphate and Triple super phosphate.
3. Briefly explain various methods of purification of domestic water.
4. Describe the hybridisation and structure of acetylene.
5. Classify organic reactions with appropriate examples.
6. Justify pyrrole is weaker base than pyridine.
7. Explain the preparation of
(i) Furan (ii) Thiophene
8. Describe photosensitization and its significance in photosynthesis process.

Section C

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

9. a) Calculate the pH of 0.001 M HCl solution. (4)
b) Relate buffer action with blood and explain how pH of the blood is maintained. (6)
10. a) Classify fuels and explain the manufacture of water gas. (5)
b) Discuss how urea is manufactured industrially. (5)
11. a) Distinguish nucleophiles and electrophiles with suitable examples. (4)
b) Outline the mechanism of nitration of benzene. (6)
12. Explain the electrophilic substitution reactions of pyridine.
13. i) Differentiate photochemical reactions from thermal reactions.
ii) Distinguish phosphorescence from fluorescence.
