

**S.NO: 22N1-UCH**

**Course Code: QUA1**

**A.D.M.COLLEGE FOR WOMEN, NAGAPATTINAM**

**(AUTONOMOUS)**

**B. Sc. (BIOCHEMISTRY/ZOOLOGY/GEOLOGY) Degree Examination**

**I/III Semester – November 2022**

**AC I – CHEMISTRY I**

**Time: 3 hours**

**Maximum Marks: 75**

**Section –A**

**10X2=20**

**Answer ALL the Questions:**

1. What are mixed fertilizers?
2. List the composition of L.P.G.
3. What is reverse osmosis?
4. Define BOD.
5. Draw the resonance structure of benzene.
6. List the name of any two antibiotics.
7. Define the term corrosion
8. Explain the self ionization of water.
9. What is activation energy?
10. Define the term chemical equilibrium.

**Section -B**

**5X5=25**

Answer **ALL** the Questions:

11. a) Explain the cleaning action of soap.

**(or)**

b) Tabulate the role of micronutrients in plant growth.

12. a) Summarize the properties of different types of water.

**(or)**

b) Comment on the determination of COD of water.

13. a) Discuss the nitration of benzene.

**(or)**

b) What are antiallergic compounds? Give examples.

14. a) Apply Lewis concept on the study of acids and bases.

**(or)**

b) Discuss the methods of prevention of corrosion.

15. a) Summarize the effect of temperature on reaction rates.

**(or)**

b) Analyze the decomposition reaction of HI.

**Section -C**

**3 X 10 = 30**

Answer any **THREE** Questions:

16. Design a method for the manufacture of soap
17. Explain the principle and methodology ion-exchange method for the purification of water.
18. Criticize the following with two examples:
  - i. Analgesics
  - ii. Antimalarial
19. What is buffer solution? Explain the action of buffer solution.
20. Determine order of a chemical reaction.