CE/EC/EEE/ME 112 (R-22)

Total No. of Questions : 10] [Total No.of Pages : 02

I/IV B. Tech. DEGREE EXAMINATIONS, MARCH - 2023

First Semester

CE / EC / EEE / ME

ENGINEERING CHEMISTRY

Time : **Three Hours** Maximum : **70** Marks

Answer All Questions

Answer ONE question from each Unit. 5x14=70 M

UNIT - I

1. Explain the aim, principle, procedure, calculation involved in EDTA method ?

(OR)

2. a) What are boiler compounds ? How are they used in internal water treatment ?

   b) How will you treat the water for drinking purpose ?

UNIT - II

3. a) Explain with properties of BUNA-NA rubber.

   b) Write short notes on co-polymerization with suitable example.

(OR)

4. a) What are the compound materials used in preparation of Bakelite ? Explain it with properties.

   b) Give the differences between engineering and commodity plastics.

UNIT - III

5. Give the importance of Lithium battery. Explain the basic principles of it and give its advantages over the H_2 - O_2 cell ?

(OR)

6. a) Explain what are the reactions involved in Oxygen - Hydrogen fuel cell ? Give the application.

   b) Write short notes on electro plating ?

P.T.O.

UNIT - IV

7. Explain about various HPLC techniques and mention its advantages.

(OR)

8. Describe about Beer - Lambert law principle ? show the absorption is linearly proportional to concentration of the solution.

UNIT - V

9. a) What are addition reactions ? Explain the possible mechanism for addition reactions with an example each.

   b) Discuss about building materials in brief ?

(OR)

10. Write synthesis and uses of Paracetamol and Aspirin in detail.