**ASSIGNMENT – UNIT IV**

1. What are the different types of water hardness and their causes?
2. What are the disadvantages of hard water?
3. Why is hardness of water expressed in terms of CaCO3?
4. What are the defects caused in boilers by using Hard water?
5. Describe the water treatment methods: Zeolite, Lime soda, Ion Exchange and Reverse Osmosis.
6. What is Phase Rule. Explain the terms Phase, Components and Degree of Freedom.
7. Describe the phase diagram of single component water system. Explain the different equilibrium states, curves, areas, triple point and metastable state.
8. What is the significance of Triple point.