## DEPARTMENT OF CHEMISTRY FACULTY OF ENGINEERING AND TECHNOLOGY SRM UNIVERSITY CYCLE TEST 1

Subject Title : Chemistry Date : 26.02.2016

Subject Code: 15CY101 Max. Marks: 25

Semester : II Time : 3.15 to 4.05pm

## Answer all the questions

1. Differentiate between soft water and hard water. (4 Marks)

- 2. A sample of water is found to contain 80 mg/l Mg(HCO<sub>3</sub>)<sub>2</sub>; 62 mg/l MgCl<sub>2</sub>; 48 mg/l MgSO<sub>4</sub> and 36 mg/l CaSO<sub>4</sub>. Calculate temporary and permanent hardness. (Atomic weights: Ca- 40; H 1; O-12; Cl 35.5; Mg- 24; S- 32) (4 Marks)
- 3.4. What is the principle involved in alkalinity determination? (4 Marks)
- 5. Explain any three internal conditioning methods for boiler water. (6 Marks)
- 6. Explain Zeolite process for water softening. (7 Marks)