BCH 1526/1536   **FUNDAMENTALS OFCHEMISTRY -II**   Time   : 3 Hours

                                                            Max Marks: 75

Answer any FIVE questions   5 x 15=75

1. Define enzyme catalysis? Explain using Michaelis-Meton equation.

2. How will you measure the enthalpy of combustion using Bomb calorimeter.

3. What are the basic principles of IR spectroscopy? and write a note on vibrations in IR spectroscopy

4. Define chiral centre? Briefly explain the rules of to assign E-Z notation and R-S notation.

5. A) What is meant by Ligand? List out the types of ligand. Give example on each type. [7]

   B) Describe the splitting of d-orbital in an octahedral crystal field   [8]

6. Write a short notes on A) HSAB principle   [5+5+5]

                         B) Lowry Bronsted theory

                         C) Arrhenius Theory.

7. a) How is a polarimeter used in determining the optical activity of a molecule [10]

   b) Differentiate enantiomer and diastereomer with examples   [5]