

## **Mathematics-Biology (CHE- 504)**

### **Block – 1: Mathematics for Biology Students**

Unit – 1: Co-ordinate System

Unit – 2: Differential Calculus

Unit – 3: Matrics

Unit – 4: Integral Calculus

Unit – 5: Differential Equations

### **Block – 2: Biology**

Unit – 6: Cell Structure and Functions

Unit – 7: Carbohydrates

Unit – 8: Fatty Acids

Unit – 9: Amino Acids, Peptides and Proteins

Unit – 10: Nucleic Acids

### **Block – 3: Spectroscopy – I**

Unit – 11 : Rotational Spectra

Unit – 12 : Vibrational Spectroscopy – 1

Unit – 13 : Vibrational Spectroscopy – 2

Unit – 14 : Vibrational Spectroscopy – 3

Unit – 15 : Roman Spectroscopy

Unit – 16 : Electron Spectroscopy

### **Block – 3 Spectroscopy – II**

Unit – 17 : H NMR Spectroscopy – 1

Unit – 18 : H NMR Spectroscopy – 2

Unit – 19 : NMR of Paramagnetic Compounds

Unit – 20 : Mass Spectrometry – 1

Unit – 21 : Mass Spectrometry – 2

### **Block – 4 Computers**

Unit – 22 : Introduction to Compounds

Unit – 23 : Basic Language

Unit – 24 : C Language

Unit – 25 : Chemistry Applications using Basic Programme

## Unit – 26 : Chemistry Application using C Language