

List of Topics Covered	
UNIT-I INTRODUCTION TO LIFE	6
Characteristics of living organisms-Basic classification-cell theory-structure of prokaryotic and eukaryotic cell-Introduction to biomolecules: definition-general classification and important functions of carbohydrates-lipids-proteins-nucleic acids vitamins and enzymes-genes and chromosome.	
UNIT-II BIODIVERSITY	6
Plant System: basic concepts of plant growth-nutrition-photosynthesis and nitrogen fixation-Animal System: elementary study of digestive-respiratory-circulatory-excretory systems and their functions-Microbial System: history-types of microbes-economic importance and control of microbes.	
UNIT-III GENETICS AND IMMUNE SYSTEM	6
Evolution: theories of evolution-Mendel's cell division-mitosis and meiosis-evidence of e laws of inheritance-variation and speciation- nucleic acids as a genetic material-central dogma immunity-antigens-antibody-immune response.	
UNIT-IV HUMAN DISEASES	6
Definition- causes, symptoms, diagnosis, treatment and prevention of diabetes, cancer, hypertension, influenza, AIDS and Hepatitis	
UNIT-V BIOLOGY AND ITS INDUSTRIAL APPLICATION	6
Transgenic plants and animals-stem cell and tissue engineering-bioreactors-biopharming-recombinant vaccines-cloning-drug discovery-biological neural networks-bioremediation-biofertilizer-biocontrol-biofilters-biosensors-biopolymers-bioenergy-biomaterials-biochips-basic biomedical instrumentation	