SUBJECT NO-BT21002, SUBJECT NAME- Cell & Molecular Biology

LTP- 3-1-0,CRD- 4

SYLLABUS :-

Structure and function of cells, sub cellular organelles including nucleus; organization of the chromosome; eu-and heterochromatins; nucleosome; cell cycle regulation - CDC mutants, protein kinase; cyclin; synthetic pattern and control of cell divisions; biochemistry of meiosis. The biochemical basis of inheritance; DNA as the genetic material; DNA structure, nucleotide sequence composition: unique, middle and highly repetitive DNA; Redundant DNA; DNA replication in prokaryotes and eukaryotes; Genetic Code; transcription and translation machinery in prokaryotic and eukaryotic system. Regulation of gene expression in E. coli-operon concept; Lac and Trp operon, hormonal control of gene expression in eukaryotes. RNA processing, Post-translational modification of proteins.