

**JYOTI NIVAS COLLEGE AUTONOMOUS**  
**PROGRAMME: B.Sc**  
**SEMESTER: I - BIOTECHNOLOGY – I**  
**CELL BIOLOGY AND GENETICS**

**COURSE CODE: 21IBT1**  
**CREDITS: 4**

**NO. OF HOURS: 60**

**COURSE OUTCOMES (COS):**

**At the end of the course student should be able to understand:**

1. Appraise the nature of cells, structural and functional Unit of living organisms, and their intricate organization.
2. Compare and categorize the genetic aspect towards linkage, recombination and determination of phenotypic characters.
3. Explain the correlative aspect about cell cycle and its regulatory mechanism.

**LEARNING OUTCOMES:**

After successful completion of the course the students will be able to

1. Create a deeper learning on the architecture of the prokaryotic and eukaryotic cells and their internal structures including organelles in living organisms.
2. Evaluate the importance of various stages of cell cycle, and their regulation.
3. State and explain the principles of inheritance, mutation and chromosomal aberrations, linkage and crossing over.
4. Formulate and perform range of laboratory exercises, demonstrating the development of practical scientific skills.