

[Dec-16]

[SPDBT-101]
M.Sc. Degree Examination

Biotechnology
I YEAR

CELL BIOLOGY AND GENETICS
(Effective from the admitted batch 2009-10)

Time: 3 Hours

Max.Marks: 70

Instructions: All parts of the unit must be answered in one place only.
Figures in the right hand margin indicate marks allotted.

1. Answer any **Four** of the following: (4x5=20)

- a) Endocytosis
- b) Significance of meiosis
- c) Gap junctions
- d) Episomes
- e) Mono hybrid cross
- f) Cross over
- g) Gene frequency

Answer all questions:

(5x10=50)

UNIT-I

2. a) Explain the structure of eukaryotic cell

OR

b) Discuss cell cycle-different stages of cell cycle

UNIT-II

3. a) Describe the structure and function of mitochondria

OR

b) Write about the cell-cell interactions

UNIT-III

4. a) Write about dihybrid cross and the significance of dihybrid cross

OR

- b) Write the difference between Incomplete and Co-dominance

UNIT-IV

5. a) Write notes on Linkage and crossing over

OR

- b) Write notes on Sex determination

UNIT-V

6. a) What are mutations, types and significance

OR

- b) Explain Hardy-Weinberg law and its significance

[29/1 Y/216]