

5165

**B. Sc. EXAMINATION**

(First Semester)

**BOTANY**

Second Paper

Cell Biology

Time : Three Hours

Maximum Marks : 4

**Note :** Attempt *Five* questions in all. Q. No. 1 compulsory and consists 8 parts of 1 mark each. Attempt *Four* more questions selecting *two* questions from each Unit. Marks of each question/part shown against it. Support your answers with labelled diagrams wherever required.

1. Answer the following questions in short :

- (a) Define Microvilli.
- (b) Expand NOR.

- (c) Write down names of types of Vacuoles.
- (d) What do you mean by thylakoids in Chloroplast.
- (e) Define Oxysomes.
- (f) What is Autoysis.
- (g) What do you mean by Heterozygous Deficiency ?
- (h) Define a Diploid. 1×8 = 8

**Unit I**

2. Write notes on the following :
- (a) Difference between SER and RER 4
  - (b) Draw a well labelled diagram of Chloroplast. 4
3. Discuss the structure, types and functions of Lysosomes. 8
4. Give a detailed account of ultra structure and functions of Power house of a cell. 8

5. Write short notes on the following :
- (a) Difference between Primary and Secondary cell wall. 3
  - (b) Semiautonomous nature of Cellular Kitchen. 2
  - (c) Structure of Golgi Apparatus in brief. 3

### Unit II

6. Give a detailed account of Meiosis-I 8
7. What are chromosomal aberrations ? Discuss its types in detail. 8
8. Write short notes on the following :
- (a) Anaphase 3
  - (b) Telomeres 2
  - (c) Translocation 3
9. What do you mean by Aneuploidy ? Discuss its various types in detail. 8