

PD-545
M.Sc. Biotechnology
1st Semester Examination, Dec 2020
Paper-II
Cell Biology

Time: Three Hours]

[Maximum Marks: 80
[Minimum Pass Marks: 29]

Note: Answer from **both** the sections as directed. The figures in the right-hand margin indicate marks

Section-A

1. **Answer the following questions:** 1X10
- (a) What is the cell shape of *E.coli*?
 - (b) What are Desmosomes?
 - (c) What is Histone?
 - (d) What is Metaphase?
 - (e) What is a receptor?
 - (f) What is osmosis?
 - (g) What is super-coiling of DNA?
 - (h) What is gametogenesis?
 - (i) Write any one function of RNA?
 - (j) Define Apoptosis.
2. **Answer the following questions:** 2X5
- (a) Write a note on Cytoskeleton.
 - (b) Write about biology of cancer.
 - (c) Write about isolation of cells.
 - (d) Write a note on development in Drosophila.
 - (e) Write a note on abnormalities in Meiosis.

Section - B
Unit-I

- Answer the following questions:** 15X4
3. Write an essay on Cellular organelles.

OR

Explain in detail on Cell junctions.

Unit-II

4. Write about Chromatin concept in detail with neat diagram.

OR

Explain in detail on Cell cycle.

Unit-III

5. Write an essay on Cell motility.

OR

Write about cellular responses to environmental signals in plants and animals.

Unit-IV

6. Write an essay on replication of DNA.

OR

Write about spatial and temporal regulation of gene expression.