



ED-327

M.Sc. 1st Semester
Examination, March-April 2021

MICROBIOLOGY

Paper - I

Cell Biology

Time : Three Hours] [Maximum Marks : 80

Note : Answer **all** questions in which Question Number 1 is compulsory. All questions carry equal marks.

1. Answer the following :
 - (a) Define Osmosis.
 - (b) Write different functions of endoplasmic reticulum.
 - (c) What is Oncogene ?
 - (d) What is Telomere ? Write the functions of Telomere.
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(Turn Over)

(2)

Unit-I

2. Explain the mechanism of molecules transport through plasma membrane.

OR

Define ultra-structure of plasma membrane and their functions.

Unit-II

3. Describe molecular mechanism of macromolecules transport through nucleus.

OR

Explain molecular events in the formation of vesicles, attachment to membrane and transport of molecules.

Unit-III

4. Explain the role of P53 gene in regulation of cell death.

OR

Explain the various phases of cell cycle, checkpoints and role of CdKs and cyclins.

(3)

Unit-IV

5. Explain structure and various types of chromosome and define nucleosome model.

OR

What is heterochromatin and euchromatin?
Explain their structure and role.
