

AE-768

M.Sc. (Previous)
Term End Examination, 2016-17

BOTANY

Paper - I

Molecular Biology, Cytology and Genetics

Time : Three Hours] [Maximum Marks : 100
[Minimum Pass Marks : 36

Note : Answer any **four** questions. All questions carry equal marks. Draw well labelled diagram wherever necessary.

1. Describe ultrastructure, functions and genome organisation of Chloroplast.
2. Write an essay on morphology and fine structure of chromosome and its functions.
3. Write an essay on gene expression and regulation in Eukaryotic cell.

(2)

4. Write short notes on any **two** of the following :
 - (a) Introns and their significance
 - (b) Recombination in phase
 - (c) RNA splicing
5. What is Recombination ? Explain different methods and significances of recombination.
6. What is Linkage ? Explain linkage group with suitable examples.
7. Write an essay on cot curve and its significance.
8. Write short notes on any **two** of the following :
 - (a) C-value paradox
 - (b) Nuclear DNA contents
 - (c) Oncogenes