



ED-315

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

BOTANY

Paper - II

Genetics

Time : Three Hours] [*Maximum Marks* : 80

Note : Answer **all** questions. All questions carry equal marks.

Unit-I

1. Explain the Karyotype and idiogram.

OR

Write short notes on any **two** of the following :

- (a) Centromere
- (b) Ribosomal RNA Genes
- (c) Lampbrush chromosome

Unit-II

2. Write an essay on molecular basis of chromosome pairing.

OR

DRG_99_(2)

(Turn Over)

(2)

Write short notes on any **two** of the following :

- (a) Bacteriophage genome
- (b) Transformation
- (c) Polyploidy

Unit-III

3. What is linkage ? Explain its mechanisms.

OR

Write short notes on any **two** of the following :

- (a) Genetic mapping
- (b) Site specific recombination
- (c) Tetrad analysis

Unit-IV

4. Write an essay on plant breeding techniques.

OR

Write short notes on any **two** of the following :

- (a) Mutation
- (b) Heterosis
- (c) Alien gene _____