



M.Sc. 1st Semester
Examination, Dec.-Jan., 2021-22

BIOTECHNOLOGY

Paper - II

Genetics

Time : Three Hours] [*Maximum Marks* : 80
[*Minimum Pass Marks* : 16

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

1. Write short notes on the following :
 - (a) Satellite DNA
 - (b) Attenuation
 - (c) Heritability of quantitative character
 - (d) Genetic system of Neurospora

(2)

2. Describe the eukaryotic genome organization in detail.

OR

Write short notes on the following :

- (a) Chemical basis of heredity
- (b) Structure of chromatin

3. What is a variation ? Explain Hardy-Weinberg genetic equilibrium with a suitable example.

OR

Write short notes on the following :

- (a) Operon concept
- (b) Multiple alleles

4. Write an elaborative note on genetic disorders.

OR

Write short notes on the following :

- (a) Sex-linked inheritance
- (b) Genotype and phenotype distribution of quantitative traits in a population

5. Explain the bacterial genetic system in detail.

OR

(3)

Write short notes on the following :

(a) Viral genetic system

(b) Conjugation _____