

M.Sc.(Botany) CBCS Pattern Semester-I
PSCBOTT04 - Paper-IV : Cytology & Genetics

P. Pages : 1

Time : Three Hours



GUG/W/23/11153

Max. Marks : 80

- Notes : 1. All questions are compulsory and carry equal marks.
2. Illustrate your answers with diagram & suitable examples.

1. Give a detail account on sex determination and dosage compensation in plants. **16**

OR

- a) Multiple alleles. **8**
b) Pleiotropic genes. **8**

2. Write details on specialized types of chromosomes. **16**

OR

- a) Packaging of DNA. **8**
b) Euchromatin and Heterochromatin. **8**

3. Write in detail on numerical changes in chromosomes and its significance in evolution. **16**

OR

- a) Inversion **8**
b) Translocation **8**

4. Explain transposable genetic elements. Add a note on its importance in evolution. **16**

OR

- a) Epigenetics and Lamarckism. **8**
b) Mutagens. **8**

5. Write short notes on:

- a) Multigene **4**
b) Karyotype **4**
c) Translocation tester sets. **4**
d) DNA Methylation. **4**
