

M.Sc.(Botany) (CBCS Pattern) Sem-IV
PSCBOTT13 - Paper-XIII : Plant Biotechnology

P. Pages : 1

Time : Three Hours



GUG/W/22/11355

Max. Marks : 80

- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw well labelled diagrams wherever it is necessary.

1. Write an essay on Gene cloning, its applications and technique. **16**

OR

Write on:

- a) Transgenic plants. **8**
b) Different types of vectors. **8**

2. What is microbial genetic manipulation? How does it plays an important role in fermentation technology. **16**

OR

Write on:

- a) DNA sequencing. **8**
b) Protein profiling and its significance. **8**

3. Write an essay on principles and scope of plant tissue culture. Add a note on its applications. **16**

OR

Write on:

- a) Salient achievements in crop biotechnology **8**
b) Somatic hybridization. **8**

4. What is Bioinformatics? Add a note on its applications and primary databases. **16**

OR

Write on:

- a) Blast **8**
b) Secondary databases. **8**

5. Write short notes on:

- a) Restriction enzymes. **4**
b) PCR **4**
c) MS-Medium. **4**
d) FASTA. **4**
