

M.Sc.(Botany) (CBCS Pattern) Semester-IV  
**PSCBOTT13 - Paper-XIII - Plant Biotechnology**

P. Pages : 1

Time : Three Hours



**GUG/W/24/11355**

Max. Marks : 80

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

1. What are DNA libraries? Enlist the types of DNA libraries. Describe construction of each of these libraries. **16**

**OR**

Write note on:

- a) Vector types and their properties. **8**  
b) Aims and strategies of transgenic development. **8**

2. What is Proteomics? Write an essay on Protein profiling and its significance. **16**

**OR**

Write note on:

- a) Bacterial transformation. **8**  
b) DNA fingerprinting techniques. **8**

3. Explain concept of Plant Tissue Culture and Production of cybrids. **16**

**OR**

Write note on:

- a) Applications of Plant Tissue Culture. **8**  
b) Methods to introduce gene in plants. **8**

4. What is a database? Describe in detail the types and structure of a database. **16**

**OR**

Write note on;

- a) Applications of Bioinformatics. **8**  
b) Genbank. **8**

5. Write short note on:

- a) T-DNA. **4**  
b) Fermentation Technology. **4**  
c) Callus culture. **4**  
d) FASTA. **4**

\*\*\*\*\*