

M.Sc.(Botany) (CBCS Pattern) Fourth Semester CBCS
PACBOTT13 - Plant Biotechnology Paper - XIII

P. Pages : 1

Time : Three Hours



GUG/W/18/11355

Max. Marks :80

- Notes :
1. All question carry equal marks.
 2. Solve all questions.
 3. Illustrate your answer with example and diagram.

1. Give an account of aims and strategies for development of transgenics using natural genetic engineer *Agrobacterium tumefaciens*. **16**

OR

Write notes on :

- a) Tools and Technique involved in recombinant DNA technology. **8**
- b) Types and properties of vector. **8**

2. Explain the mechanism and applications of polymerase chain reaction. **16**

OR

Write notes on :

- a) Bacterial transformation. **8**
- b) Protein profiling and its significance. **8**

3. Describe the isolation and culture of protoplast and add note on production of cybrids. **16**

OR

Write notes on :

- a) Tissue culture media. **8**
- b) Role of transgenic plants in crop Biotechnology. **8**

4. Describe the types and classification of databases. **16**

OR

Write notes on :

- a) Prediction and uses of BLASTs. **8**
- b) History and application of Bioinformatics. **8**

5. Write short notes on :

- a) Construction of cDNA libraries. **4**
- b) Fermentation technology. **4**
- c) Basic concept of plant tissue culture. **4**
- d) Bioinformatics in India. **4**
