

M.Sc.(Botany) Third Semester (Old)
BOT11 - Paper-XI : Plant Biotechnology

P. Pages : 1

Time : Three Hours



GUG/W/18/2256

Max. Marks : 80

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

1. What is Gene cloning? Describe methods and techniques involved in gene cloning. 16

OR

Write note on-

- a) Agrobacterium mediated gene transfer. 8
b) Transposon mediated gene transfer. 8

2. Describe polymerase chain Reaction, its types and add note on its applications. 16

OR

Write note on-

- a) Protein profiling and its significance. 8
b) Selection of Transformants & Recombinants. 8

3. Give detail account on production of somatic embryos and its significance. 16

OR

Write note on-

- a) Principle and scope of plant tissue culture. 8
b) Particle gun method of gene transfer in plants. 8

4. Define Database and describe different types of Bioinformatics databases. 16

OR

Write note on-

- a) ORF Finder. 8
b) Nucleotide and protein BLAST. 8

5. Write short note on:-

- a) Plasmid and Cosmid. 4
b) Enzymatic method of DNA synthesis. 4
c) Haploid Plants. 4
d) SWISS-Prot 4
