

M.Sc. (Biotechnology) (CBCS Pattern) Sem-III
PSBIT111 - Genetic Engineering Paper-III

P. Pages : 1

Time : Three Hours



GUG/W/22/11238

Max. Marks : 80

1. Discuss different plant gene isolation methods in detail. **16**

OR

- a) Discuss the method of isolation of DNA from microbes. **8**
b) What is restriction modification system. Give different classes of Restriction enzymes. **8**

2. Give characteristic of good vector. Write in detail about viral vectors. **16**

OR

Write a note on :

- a) Berg's terminal transferase are method. **8**
b) Current ligation techniques. **8**

3. Explain any two methods of DNA sequencing. **16**

OR

What are antibody probes? Discuss with reference to

- a) Western blotting technique. **8**
b) Immunoprecipitation. **8**

4. Discuss different chemical methods of transfection. **16**

OR

- a) Write a note on transformation for DNA uptake. **8**
b) Give detail about the gene transfer by pronuclear microinjection. **8**

5. a) Give the role of topoisomerases. **4**
b) Homopolymer tailing. **4**
c) Southern hybridisation. **4**
d) Transfection of DNA by viral vectors. **4**
