

Roll No.

Total Pages : 02

GSE/D-21

813

BIO-TECHNOLOGY

Paper I

Introduction to Bio-technology

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting *two* questions from each Unit. Q. No. **1** is compulsory.

1. Write brief notes on the following : **8×1=8**

- (i) Immobilized enzymes
- (ii) Hybridoma Technology
- (iii) DNA fingerprinting
- (iv) Embryo Transfer
- (v) Fermentation
- (vi) Callus
- (vii) Bioremediation
- (viii) Trade secret.

Unit I

2. Explain the following :

- (a) Monoclonal Antibodies **4**
- (b) One gene one enzyme hypothesis. **4**

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3. What is Plant Tissue Culture ? Discuss its benefits and limitation. **8**
4. Give answers of the following :
- (a) Proteomics **4**
 - (b) Scope of bio-technology. **4**

Unit II

5. Write short notes on the following :
- (a) Patent **4**
 - (b) Applications of bio-technology in Chemical Industry. **4**
6. Discuss the status of Bio-technology research in India. **8**
7. Give briefly answers of the following :
- (a) Applications of biotechnology in Pharmaceutical Industry **4**
 - (b) Waste treatment. **4**