

Bachelor of Science (B.Sc.) Semester—VI Examination**BIOTECHNOLOGY****(Plant and Animal Biotechnology)****Paper—II**

Time : Three Hours]

[Maximum Marks : 50

N.B. :— (1) **All** questions are compulsory and carry equal marks.

(2) Draw diagrams wherever necessary.

1. Discuss tissue culture as a technique to produce novel plants. 10

OR

Write notes on :

- (a) Preparation of Primary Tissue Culture Media 5

- (b) Maintenance of Callus. 5

2. Describe the Somatic Hybridization of plants. 10

OR

Describe Ti plasmid and its applications. 10

3. Describe various types of media used in ATC. 10

OR

Write notes on :

- (a) Establishing Primary Culture 5

- (b) Cell-Cell Communication. 5

4. Describe production of recombinant vaccines with suitable examples. 10

OR

- (a) What is IVF ? Give its applications. 5

- (b) Gene Therapy. 5

5. Solve any **TEN** of the following :

- (i) What is the role of chelating agent in plant tissue culture media ? 1

- (ii) What is synchronization of cultured cells ? 1

- (iii) What is single cell clones ? 1

- (iv) What is diploidization ? 1

- (v) What are hybrids ? 1

- (vi) What is Micropropagation ? 1

- (vii) What are Immortal cells ? 1

- (viii) What is Trypsinization ? 1

- (ix) What is passaging ? 1

- (x) What is Transgenic animal ? 1

- (xi) What is the role of somatostatin ? 1

- (xii) How many disulphide bonds are present in insulin ? 1