



DPB – 510 (BIOTECH)

M.Sc. (Final) Biotechnology Degree Examination, Aug./Sept. 2010
Directorate of Distance Education
(Freshers)

Paper – V : CELL AND TISSUE CULTURE TECHNOLOGY

Time : 3 Hours

Max. Marks : 85

Instructions : 1) Answer **all** questions.
2) Illustrate **wherever** necessary.

1. Write briefly on : (5×3=15)
 - a) Suspension cultures
 - b) De differentiation
 - c) Somaclone
 - d) Totipotency
 - e) Cell cloning.

2. Write short notes on any **FOUR** of the following : (4×5=20)
 - a) Monolayer cultures
 - b) Virus free plants through tissue culture
 - c) GUS gene
 - d) Androgenesis.

3. Write a detailed note on any **TWO** of the following : (2×10=20)
 - a) Cell transformation
 - b) Somatic embryogenesis
 - c) Organogenesis.

4. Explain the technique and advantages of somatic hybridization. 15

OR

Write an account on Agrobacterium mediated gene transfer in plants.

5. Describe the assays and evaluation of technique of cytotoxicity and cell viability. 15

OR

Explain the method of animal cell culture in laboratory.