



MJ-525

M.Sc. (Botany)

4th Semester Examination, Jan.-June, 2022

Paper - III

Biotechnology - II

(Plant Cell, Tissue and Organ Culture)

Time : Three Hours]

[*Maximum Marks* : 80

Note : Answer from **all** the Units and Question Number 1 is compulsory. All questions carry equal marks.

1. Write short notes on any **four** of the following :

(a) Cellular totipotency

(b) Hybrid cells

(c) Vetrification

(d) Somaclones

(e) Environmental factors

(f) Transgenics for quality modification

(2)

Unit-I

2. Describe the culture of single cell.

OR

Write short notes on the following :

- (a) Media preparation
- (b) Auxillary bud proliferation

Unit-II

3. Give a detail account on protoplast isolation.

OR

Write short notes on the following :

- (a) Androgenesis
- (b) Protoplast fusion

Unit-III

4. Give a detail account on cryopreservation.

OR

Write short notes on the following :

- (a) Determination of survival viability
- (b) Intellectual property rights

Unit-IV

5. Explain the terminator seed technology.

OR

(3)

Write short notes on the following :

(a) Artificial seeds

(b) Immobilized cell system
