

Roll No.

DD-483

M. Sc. (Second Semester)

EXAMINATION, May/June, 2020

BIOTECHNOLOGY

Paper Seventh

(Plant Biotechnology)

Time : Three Hours

Maximum Marks : 80

Note : Attempt all questions. Question No. 1 is compulsory.

All questions carry equal marks.

1. Write single line definition of the following :

- (a) Chelating agent
- (b) Homozygous lines
- (c) Cryopreservations
- (d) Tumour formation
- (e) Electroporation
- (f) SCAR
- (g) Bt genes
- (h) PR proteins

(A-65) P. T. O.

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Unit—I

2. Define Callus. How is it manipulated for indirect somatic embryogenesis ? Describe in detail.

Or

Write short notes on any *two* of the following :

- (a) Suspension culture
- (b) Organogenesis
- (c) Single cell clones

Unit—II

3. Define embryo rescue. How is it useful in interspecific hybridization ? Describe with suitable example.

Or

Write short notes on any *two* of the following :

- (a) Germplasm
- (b) Ovary culture
- (c) Hybrid

Unit—III

4. Describe Ti plasmid. How is it useful in genetic transformation ? Explain with suitable examples.

Or

Write short notes on any *two* of the following :

- (a) 35 S promotes
- (b) Multiple gene transfer
- (c) Male Sterile lines

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Unit—IV

5. Describe engineering of Phenylpropanol pathway with suitable example.

Or

Write short notes on any *two* of the following :

- (a) Shikimate pathway
- (b) RFLP
- (c) Biodegradable plastids

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180

(A-65)