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VI Semester B.Sc. Examination, September/October 2023

(CBCS Scheme)

BIOTECHNOLOGY – VII

Plant Biotechnology

Time : 3 Hours

Max. Marks : 70

**Instruction :** Draw *neat* labelled diagrams *wherever* necessary.

SECTION – A

I. Write short notes on the following. (5×2=10)

- 1) Explant
- 2) Somaclones
- 3) Electroporation
- 4) Colchicine
- 5) Copyright



SECTION – B

II. Answer **any four** of the following. (4×5=20)

- 6) Define growth hormones. Add a note on Cytokinins.
- 7) Explain the procedure and the factors affecting endosperm culture.
- 8) What is cybridization ? Add a note on its application.
- 9) Discuss on the importance of plant tissue culture in Horticulture.
- 10) What are Edible Vaccine ? Discuss on its advantage and disadvantage.

SECTION – C

III. Answer **any three** of the following. (3×10=30)

- 11) Describe the procedure involved in anther culture. Add a note on its applications.
- 12) Give an account on large scale production of secondary metabolites with suitable example.

P.T.O.



- 13) What is protoplast ? Explain the methods of protoplast fusion.
- 14) Discuss on the biological mediated gene transfer. Add a note on transgenic plants.
- 15) Write a short note on :
  - a) Chemical sterilization
  - b) IPR.

## SECTION – D

IV. Write the following in **one** word or a sentence **each**. (10×1=10)

- 16) Heat shock protein.
- 17) Ti plasmid.
- 18) Rooting.
- 19) BAP.
- 20) Re differentiation.
- 21) Cytoplasmic male sterility.
- 22) Meristem.
- 23) Sodium Hypochloride.
- 24) Geotropism.
- 25) Expand PEG.



## SECTION – C

- III. Answer any three of the following. (3×10=30)
  - 11) Describe the procedure involved in anther culture. Add a note on its applications.
  - 12) Give an account on large scale production of secondary metabolites with suitable example.