



DCBT-502

V Semester B.Sc. Degree Examination, December/January-2025/2026

(NEP Scheme)

BIOTECHNOLOGY

Plant and Animal Biotechnology

Paper : VI

Time : 2½ Hours

Maximum Marks : 60

Instructions :

Draw a neat labelled diagram wherever necessary

SECTION-A

I. Write a short answers on the following.

(5×2=10)

- 1) Morphogenesis.
- 2) Hardening
- 3) Reprogramming
- 4) Direct DNA transfer.
- 5) Lipofection.



SECTION-B

II. Answer any FOUR of the following.

(4×5=20)

- 6) What are growth hormones? Add a note on Auxin.
- 7) Explain the Laboratory organization for plant tissue culture.
- 8) Enumerate the Significance of transgenic plants in Agriculture.
- 9) Explain the basic technique of mammalian cell culture.
- 10) Discuss on abiotic stress tolerance.

[P.T.O.]



SECTION-C

III. Answer any Three of the following.

(3×10=30)

- 11) Explain the technique involved in somatic embryogenesis. Add a note on its application.
- 12) Explain the in vitro production of secondary metabolites and its application.
- 13) Describe the agrobacterium mediated gene transfer.
- 14) Discuss on the biological characteristics of cultured cells.
- 15) Give an account on
 - a) Application of stem cells.
 - b) Cloning of Dolly.

