



DCBT – 502

V Semester B.Sc. Examination, February/March 2024
(NEP Scheme) (Freshers)
BIOTECHNOLOGY (Paper – VI)
Plant and Animal Biotechnology

Time : 2½ Hours

Max. Marks : 60

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

SECTION – A

I. Write short answers on the following :

(5×2=10)

- 1) Callus
- 2) Electroporation
- 3) Proliferation
- 4) Transgene
- 5) Viral vectors.



SECTION – B

II. Answer **any four** of the following :

(4×5=20)

- 6) Describe bud culture. Add a note on its applications.
- 7) Explain invitro production of secondary metabolites.
- 8) Discuss on cell viability and cytotoxicity.
- 9) Describe the ethical issues in transgenesis.
- 10) Briefly explain the production of recombinant vaccines.

P.T.O.



SECTION – C

III. Answer **any three** of the following :

(3×10=30)

- 11) Explain the stages of micropropagation.
 - 12) Discuss on the biological mediated gene transfer.
 - 13) Give an account on :
 - a) GMO's
 - b) Risks and benefits of transgenic plants.
 - 14) Describe the isolation, identification and expansion of stem cell.
 - 15) Explain the technique involved in developing dolly.
-

