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DCBT503

Reg. No.

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V Semester B.Sc. Degree Examination, March/April - 2024

BIOTECHNOLOGY

Plant and Animal Biotechnology

(NEP Scheme Freshers 2023-2024 Onwards)

Paper : VI



Time : 2½ Hours

Maximum Marks : 60

Instructions to Candidates:

1. All parts are compulsory.
2. Draw neat labelled diagram.

PART - A

I. Write short notes on any FOUR of the following.

(4×2=8)

1. Organogenesis.
2. Bud culture.
3. Ti plasmid.
4. Pluripotency.
5. Cell viability.
6. Trans differentiation.

PART - B

II. Answer any FOUR of the following.

(4×5=20)

7. What is suspension culture? Mention its advantages. **(3+2)**
8. Define gene transfer method. Explain Biolistic method and its application. **(2+3)**
9. Explain in vitro propagation. Add a note on its application. **(3+2)**
10. Define animal cell culture media. Write briefly about natural media. **(2+3)**
11. Define Transfection. Mention Retroviral mediated gene transfer method. **(2+3)**
12. Explain the techniques involved in organ culture and mention its uses. **(2+3)**

[P.T.O.]



PART - C

III. Answer any **FOUR** of the following.

(4×8=32)

13. What is secondary metabolite?

Write notes on :

a. Capsaicin.

b. Saffron.

(2+3+3)

14. Describe briefly:

a. Embryo culture.

b. Meristem culture.

(4+4)

15. Explain transgenic plants with reference to Herbicide resistance plants and Disease resistance plants.

(2+3+3)

16. What is stem cell. Write in details its type and uses.

(2+3+3)

17. Describe transgenic animals. Mention any two methods of transfection.

(2+3+3)

18. What are genome edited animals. Explain with suitable examples.

(5+3)
