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DCBT201

Reg. No.

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II Semester B.Sc. Degree Examination, September - 2023

BIOTECHNOLOGY

Microbiological Methods

(NEP Scheme)

Paper : II



Time : 2½ Hours

Maximum Marks : 60

Instructions to Candidates:

Answer any **FOUR** questions for each section.

SECTION - A

I. Answer any FOUR of the following.

(4×2=8)

1. What is resolving power?
2. What are microbiostatic agents?
3. Define pasteurization.
4. What is a synthetic media? Give an example.
5. Define IC50.
6. Name any two antiviral agents.

SECTION - B

II. Answer any FOUR of the following.

(4×5=20)

7. Write a note on working principle and applications of spectrophotometer. **(2+3)**
8. What is Tyndallization? Write a brief note on its process. **(2+3)**
9. Define sterilization. Explain dry heat sterilization. **(2+3)**
10. Give a brief account on principle of staining and its techniques. **(2+3)**
11. Explain the method of maintenance and stocking of pure culture. **(2+3)**
12. Discuss challenges in antimicrobial therapy. Add a note on MDR. **(2+3)**

[P.T.O.]



(2)
SECTION - C

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III. Answer any **FOUR** of the following. (4×8=32)

13. Explain the construction, working principle and applications of SEM. (2+3+3)
 14. Give a detailed account on paper and thin layer chromatography. (4+4)
 15. Discuss chemical methods of sterilization and its significance. (6+2)
 16. What is a culture media? Elaborate on different culture medias used in microbiological studies. (2+6)
 17. Write a note on :
 - a. Agar well diffusion method.
 - b. Neutralization assay. (4+4)
 18. Define microdilution. Explain its methodology. (2+6)
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