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DCBT201

Reg. No.

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II Semester B.Sc.(Theory) Degree Examination July/August - 2024

BIOTECHNOLOGY**Microbiological Methods**

(NEP Scheme 2021-2022 Batch Onwards F+R)

Paper : II**Time : 2½ Hours****Maximum Marks : 60****Instructions to Candidates:****Answer any Four questions for Each Section.****Draw neat labelled diagram Wherever necessary.****SECTION - A****I. Answer any Four of the following.****(4×2=8)**

1. Numerical aperture.
2. HEPA filter
3. TEM
4. Differential stains
5. Antifungal agents
6. Disc diffusion

SECTION - B**II. Answer any Four of the following.****(4×5=20)**

7. Explain the working principle and uses of phase contract microscope. (3+2)
8. Write a note on different parts of centrifuge and its applications. (2+3)
9. Define sterilization. Explain radiation method of sterilization. (2+3)
10. What is culture media? Write a note on macronutrients. (2+3)
11. Explain the principle of staining. Add a note on endospore staining. (2+3)
12. What are antibacterial agents? Write a note on microdilution method. (2+3)

[P.T.O.]



SECTION - C

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

13. Describe the working principle and applications of compound microscope. **(4+4)**
 14. Write a note on
 - a) Pasteurization
 - b) Autoclave **(4+4)**
 15. What is filtration? Comment on seitz filter in detail. **(2+6)**
 16. Give an account on microbial plating methods:
 - a) Pour plate
 - b) Spread plate **(4+4)**
 17. What is Zone of inhibition? Explain the methodology. **(2+6)**
 18. Write a note on
 - a) IC_{50}
 - b) MBC **(4+4)**
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