



DCMB101

Reg. No.

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I Semester B.Sc. Degree Examination, May/June - 2022

MICROBIOLOGY(DSC)

General Microbiology

(NEP CBCS Semester Scheme Freshers)

Paper : 1

Time : 2½ Hours

Maximum Marks : 60

Instructions to Candidates : i) Answer all the Parts
ii) Draw diagrams wherever necessary

PART - A

I. Write Short notes on Any Four of the following:

- 1) Martinus Beijerinck
- 2) Nature of stains
- 3) Slant culture
- 4) Archaeal cell membrane
- 5) Slime layer
- 6) Cilia.

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(4×2=8)

PART - B

II. Answer any Four of the following:

(4×5=20)

- 7) Discuss - 'Radiation as a method of Sterilization'. **(5)**
- 8) Give an account of 'Origin of life'. **(5)**
- 9) a) What is simple staining? **(1+4)**
b) Describe the procedure of 'Capsule Staining'.
- 10) a) What are fimbriae? **(1+4)**
b) Give an account of the structure and function of Endoplasmic reticulum.

[P.T.O.]

NOTICE

(2)

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- 11) a) What is a bacterial cell cycle? (3+2)
b) Write a note on 'extra chromosomal material'.
12) a) List the single membrane containing organelles of eukaryotic cells. (2+3)
b) Classify bacteria based on their shape and arrangement.

PART - C

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

- 13) Explain the working principle, construction and operation of a compound microscope. (8)
14) Louis Pasteur and Edward Jenner are pioneer Microbiologists. Substantiate. (8)
15) a) What is differential staining? (2+6)
b) Elaborate on the principle and procedure of Gram staining.
16) a) Briefly explain - 'Binary fission' in bacteria (3+5)
b) Describe the structure of bacterial flagella.
17) a) List the various inclusion granules present in a bacterial cell. (2+6)
b) Elaborate on the structure and functions of Mitochondria.
18) What are endospores? Discuss their formation, germination and significance. (8)

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