



DCMB201

Reg. No.

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II Semester B.Sc. (NEP) Degree Examination, October - 2022

MICROBIOLOGY

Microbial Biochemistry and Physiology

Paper: II (DSC - T)

(CBCS Scheme FRESHERS 2021 Onwards)

Time : 2½ Hours

Maximum Marks : 60

Instructions to Candidates:

- i) Answer any Four questions from each Part
- ii) Draw relevant diagram

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PART - A

I. Write short notes on any Four

(4×2=8)

1. Differentiate covalent and non-covalent bonds.
2. Give any two properties of carbohydrates.
3. What are vitamins? Give any two examples.
4. What are high energy compounds? Give any two examples.
5. Define free energy and Entropy.
6. What is the role of Na⁺K⁺-AT Pase

PART - B

II. Answer any Four of the following

(4×5=20)

7. Write notes on effect of P^H and Temperature on growth. (5)
8. Explain chemostat as a continuous cultivation. (5)
9. a) What is a hydrogen bond?
b) Classification of proteins (1+4)
10. a) What is Active Transport
b) Explain Cyclic photophosphorylation. (1+4)

[P.T.O.]



(2)

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11. a) Water is an universal solvent Discuss. (3+2)
b) Define Fats. Give one example.
12. a) What is Vander Waals force give an example (2+3)
b) What is NADH_2 and FADH_2

PART - C

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

13. Define growth Explain the different phases of growth. (8)
14. Define oxidative phosphorylation and explain ATP synthesis. (8)
15. a) Give the schematic representation of calvin cycle.
b) Explain Homolactic acid fermentation. (5+3)
16. a) Give the structure of cytochromes, its properties and significance.
b) Write notes on importance of lipids (4+4)
17. Discuss carbon, hydrogen and oxygen as major elements of life (8)
18. a) Write a note on the role of buffers in biological system
b) Give a brief account on Hemoglobins. (5+3)

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