

22190

II SEMESTER B.Sc. EXAMINATION, JULY/AUGUST 2023

SCHEME: SEMESTER (NEP)

040

MICROBIOLOGY

PAPER-II-DSC2-MICROBIAL BIOCHEMISTRY AND PHYSIOLOGY

Time: 2 ½ Hours

Max Marks: 60

Instructions to Candidates: 1. All questions are compulsory.

2. Draw neat labelled diagrams wherever necessary.

- I. Define any FIVE of the following. 5x2=10
- 1.
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|-----------------------|---------|
| a. Non-covalent bonds | CO1 LL1 |
| b. Polarity | CO1 LL1 |
| c. Zwitterions | CO1 LL2 |
| d. Amino acid | CO2 LL1 |
| e. Turbidostat | CO3 LL2 |
| f. ATPase | CO4 LL2 |
| g. Purple bacteria | CO4 LL2 |
- II. Write short notes on any FIVE of the following. 5x6=30
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| 2. Bonding properties of carbon. | CO1 LL2 |
| 3. Buffers and physiological buffer system. | CO1 LL1 |
| 4. Properties of lipids. | CO2 LL1 |
| 5. Diauxic growth. | CO3 LL2 |
| 6. Viable count | CO3 LL2 |
| 7. Fermentation reaction | CO4 LL2 |
| 8. Light harvesting pigments | CO4 LL2 |
- III. Answer any TWO of the following. 2x10=20
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| 9. Explain the Structure and properties of water. | CO1 LL1 |
| 10. Discuss the classification and properties of carbohydrates. | CO2 LL2 |
| 11. Briefly explain the classification of microorganisms based on nutrition. | CO3 LL2 |
| 12. Describe Respiratory electron transport chain in bacteria. | CO4 LL2 |

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