PG Odd Semester (CBCS) Exam., December—2018

MICROBIOLOGY

(1st Semester)

Course No. : MIBCC–104

(Microbial Physiology and Biochemistry)

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The questions are of equal value

Answer **five** questions, taking **one** from each Unit

UNIT—I

1. Explain the primary, secondary, tertiary and quaternary structures of proteins.

2. What is enzyme inhibition? Describe the different types of enzyme inhibition mechanisms.

UNIT—II

3. Describe 'first' and 'second' laws of thermodynamics with suitable examples of biochemical reactions.

4. Explain 'oxidation-reduction' reactions and 'coupled' reactions with suitable examples.

UNIT—III

5. What are the various reactions of Glycolysis? How is glycolytic pathway important for bacteria?

6. Describe pentose phosphate pathway and its importance.

UNIT—IV

7. Describe the process of -oxidation of even number-carbon containing fatty acid in bacteria. Also explain the role of 'Fad'-system in this process.

8. Write a detailed note on assimilation of nitrate and ammonia in bacteria.

UNIT—V

9. Explain the process of light reaction in Green bacteria and Purple-sulphur bacteria.

10. Write a detailed note on photosynthetic pigments.

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