PG Odd Semester (CBCS) Exam., December—2016

MICROBIOLOGY

(1st Semester)

Course No. : MIBCC–104

(Microbial Physiology and Biochemistry)

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

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

UNIT—I

1. What are allosteric enzymes? Explain the kinetic analysis of allosteric enzymes. 14

2. What is 'enzyme inhibition'? Explain different types of enzyme inhibition with suitable examples. 14

UNIT—II

3. What are different laws of thermodynamics? Describe with suitable examples. 14

4. Write a note on biochemistry of group-transfer and coupled reactions. 7+7=14

UNIT—III

5. Describe the importance of glycolysis in catabolism of aerobic and anaerobic organisms. Explain about glycolysis in detail. 14

6. What are different components of election transport chain? Describe their roles in oxidative phosphorylation. 14

UNIT—IV

7. Describe the process of -oxidation of odd number and even number C-chain fatty acid. Also explain the net gain of ATP by complete oxidation of palmitic acid (16 : 0). 10+4=14

8. Describe the synthesis of amino acid of glutamate family. 14

UNIT—V

9. Describe the photosynthetic electron transport systems of green bacteria and purple bacteria during anoxygenic photosynthesis. 7+7=14

10. Write a detailed note on different types of photosynthetic pigment and their characteristics. 14

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