

B.Sc. (With Credits)-Regular-Semester 2012 Sem III
B.Sc. 2361 - Micro-Biology-I (Enzymology And Metabolism)
Paper - I

P. Pages : 2

Time : Three Hours



GUG/W/16/3346

Max. Marks : 50

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw diagrams wherever necessary.

1. What is enzyme inhibition ? Explain it's types in details. 10

OR

What is immobilization of enzymes ? Give it's different techniques and applications.

2. Give details of TCA cycle. 10

OR

What is oxidative Phosphorylation ? Describe electron transport chain in details.

3. a) Write a note on enzyme nomenclature. 2½

b) Write a note on MM constant. 2½

c) Give outline of Glycolysis. 2½

d) Write in brief about cyclic photophosphorylation. 2½

OR

e) Explain the terms co-factor & membrane bound enzymes. 2½

f) Give the difference between Biocatalyst and chemical catalyst. 2½

g) Write a note on β -oxidation of fatty acids. 2½

h) Write in brief about mixed acid fermentation. 2½

4. a) Write a note on membrane bound enzymes. 2½

b) Write the applications of immobilized enzymes. 2½

c) What are anapleurotic reactions explain with examples. 2½

d) Write a note on metabolic mill. 2½

OR

e) Write a note on induced fit theory. 2½

- f) Explain enzyme immobilization in brief. 2½
- g) Write the outline of HMP pathway. 2½
- h) Give the outline of non-cyclic photophosphorylation. 2½

5. Attempt any ten.

- a) What is Apoenzyme ? 1
- b) What are oxidoreductases ? 1
- c) What are zymogens ? 1
- d) What is k_m ? 1
- e) Define unit of enzyme activity. 1
- f) What are allosteric enzymes ? 1
- g) What is anabolism ? 1
- h) What is β -oxidation ? 1
- i) What is role of EMP pathway ? 1
- j) What is metabolic mill ? 1
- k) What is photophosphorylation ? 1
- l) What are cytochromes ? 1
