

Code No. 3082

FACULTY OF SCIENCE

B.Sc. III-Semester (CBCS) Examination, November / December 2018

Subject : Biochemistry

Paper – III : Bioenergetics Biological Oxidations and Enzymology

Time : 3 Hours

Max. Marks: 80

PART – A (5 x 4 = 20 Marks)
(Short Answer Type)

Note : Answer any FIVE of the following questions.

- 1 Substrate level phosphorylation
- 2 Enthalpy
- 3 Redox Couplers
- 4 Cyclic photophosphorylation
- 5 Activation energy
- 6 Enzyme specificity
- 7 Isoenzymes
- 8 Effect of substrate concentration on enzyme activity

PART – B (4 x 15 = 60 Marks)
(Essay Answer Type)

Note: Answer ALL questions.

- 9 (a) Write in detail about high energy compounds.
OR
(b) Write the structure, types and functions of cytochromes.
- 10 (a) Write about various enzymes involved in biological oxidation. Add a note on biochemically important half reactions.
OR
(b) Explain in detail the Electron Transport Chain. Add a note on inhibitors of electron transport chain.
- 11 (a) Discuss various enzyme assays. Add a note on active site.
OR
(b) Write in detail the classification of enzymes with suitable examples.
- 12 (a) Explain Michaelis-Menten equation. Add a note on significance of K_m and V_{max} .
OR
(b) Discuss in detail the mechanism of enzyme catalysis.