

15103(OR)

M.Sc. DEGREE EXAMINATION, OCTOBER/NOVEMBER 2015

FIRST SEMESTER

Zoology

Paper III – METABOLIC REGULATION AND CELL FUNCTION

Time: Three hours

Max. Marks: 75

(No additional sheet will be supplied)

PART A- (5 x 3 =15 marks)

Answer any FIVE questions.

Each answer carries 3 marks.

Each answer should not exceed 1 page

1. Covalent bonds
2. Primary structure of protein
3. gluconeogenesis
4. ATP
5. Unsaturated Fatty acids
6. Redox potential
7. Purines
8. Nucleotide biosynthesis

PART B - (4 x 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages

9. What is chemical bond? Explain the role of Covalent bond, Hydrogen bond, and Vander Wall interactions in biological functions.  
Or
10. Describe the classification, structure and functions of lipids with examples.  
Or
11. Give a detailed account on citric acid cycle.  
Or
12. Explain oxidative phosphorylation with reference to Electron Transport Chain.  
Or
13. Explain the Bio synthesis of urea.  
Or
14. Explain the biosynthesis of long chain fatty acids.  
Or
15. Give a detailed account on coordinated synthesis of purines and pyrimidines.  
Or
16. Clinical disorders of purine metabolism.