

FIRST YEAR M.Sc. MEDICAL PHYSIOLOGY DEGREE EXAMINATIONS,  
DECEMBER 2012.  
(FOUNDATION COURSE)

Time: 3 hrs

Max. Marks:- 70

PAPER II - BIOCHEMISTRY

- Answer all the questions
- Draw diagrams wherever necessary

**Essay:**

(2x10=20)

1. Describe the steps in beta oxidation of fatty acids. Explain the energetics of beta oxidation taking one molecule of palmitic acid as an example. (6+4=10)
2. Describe the steps in translation. Explain briefly on any four post-translational modifications. (6 +4=10)

**Short Notes:**

(6X5=30)

3. Principle and applications of polymerase chain reaction
4. List five applications of radio-isotopes
5. Enzymes used as liver function tests
6. Metabolic alkalosis
7. Formation of ketone bodies
8. Diagrammatically represent electron transport chain showing sites of ATP synthesis

**Answer briefly:**

(10x2=20)

9. Heat coagulation test
10. Significance of co-enzymes
11. Galactosemia
12. Sickle cell anemia
13. Von gierke disease
14. Fatty liver
15. Deficiency manifestations of vitamin K
16. Aikaptonuria
17. Tests used in the diagnosis of acquired immunodeficiency syndrome
18. Western blotting