[LC 0413] APRIL 2013 Sub. Code: 1201

## M.Sc BIOCHEMISTRY DEGREE EXAMINATION For candidates admitted from 2008-2009 regulations PAPER I - PHYSICAL AND ORGANIC ASPECTS OF BIOCHEMISTRY, INSTRUMENTATION AND BIOCHEMICAL TECHNIQUES, BIOSTATISTICS

O.P. Code: 281201

Time: 3 hours Maximum: 100 marks

I. Elaborate on: (2x20=40)

1. What is chromatography? Mention the various types .Describe in detail about any one with a note on applications of chromatography in clinical medicine?

2. Describe in detail the structure of Haemoglobin. Add a note on how the structure of Haemoglobin aids its function.

## II. Write Notes on : (10X6=60)

- 1. Describe in detail subcellular fractionation and identification of various eukaryotic cell organelles.
- 2. Mention the various types of RNA and describe in detail the structure of tRNA?
- 3. Describe in detail the principle, instrumentation and applications of chemiluminescence?
- 4. Define Reference materials . Classify them and describe their applications in laboratory.
- 5. Describe in detail the Fluid mosaic model of Biomembranes.
- 6. Classify Fatty acids. Describe their transport in the blood, their functions with a note on lipid peroxidation.
- 7. How is Glucose transported across the various cells in the body?
- 8. Define Beer Lamberts law and its limitations with a note on its applications in spectrophotometry?
- 9. Describe in detail the structure and functions of Lysosomes and a note on its disorders.
- 10. Describe in detail the structure of collagen, its types and functions.

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