

(LI 148)

APRIL 2016

Sub. Code:2043

**M.D. DEGREE EXAMINATION
BRANCH XIII – BIOCHEMISTRY**

**PAPER I – PHYSICAL AND ORGANIC ASPECTS OF BIOCHEMISTRY,
INSTRUMENTATION BIOCHEMICAL TECHNIQUES, BIostatISTICS**

Q.P.Code: 202043

Time: Three Hours

Maximum: 100 Marks

I. Essay Questions:

(2 x 10 = 20)

1. Discuss the principle, components and applications of Spectrophotometer.
2. Describe the structure and functions of phospholipids.

II. Short Questions:

(8 x 5 = 40)

1. Precision.
2. Structure of collagen.
3. Hybridization techniques.
4. Reference interval.
5. Ion exchange chromatography.
6. Pre analytical variables.
7. Polyacrylamide Gel Electrophoresis.
8. Ion selective electrodes.

III. Reasoning Out:

(4 x 5 = 20)

1. Sigmoidal oxygen dissociation curve of Haemoglobin.
2. Pulmonary surfactant brings down the work done for ventilation.
3. Atomic absorption methods are more sensitive than flame emission methods.
4. pI of protein gives some clue about the aminoacid content of the protein.

IV. Very Short Answers:

(10 x 2 = 20)

1. Principle of ELISA.
2. Isoelectric pH.
3. Regression analysis.
4. Turn around time.
5. Principle and applications of potentiometry.
6. Haldane effect.
7. Significance of Polyunsaturated fatty acids.
8. Liposomes and its therapeutic applications.
9. Keratan Sulphate.
10. Stabilising forces in molecules.
