

[LS 148]

NOVEMBER 2020
(OCTOBER 2020 SESSION)
M.D. DEGREE EXAMINATION

Sub. Code: 2043

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 15 = 30)

1. Discuss in detail the principle and applications of high Performance Liquid chromatography
2. Explain the steps in validating an analytical method of a manufacturer before introducing it into your laboratory?

II. Short notes:

(10 x 5 = 50)

1. Turn around time in laboratory
2. Biomedical waste generated in clinical laboratory and its disposal
3. Functions and biomedical applications of Plasmalogens
4. Explain the term ‘Limit Checks’. How is it useful in quality assurance programme?
5. Westgard Multi QC rules and their interpretation.
6. Classify and explain briefly the structure and biological significance of Glycolipids.
7. Classify Heteropolysaccharides and write a note on their biologic significance.
8. Principle and application of Sandwich ELISA
9. Protein polymorphisms and its effect on function.
10. Biochemical and structural changes of haemoglobin chronic hypoxic conditions

III. Reasoning Out:

(4 x 5 = 20)

1. Why Glucose is stored in polymer form in the body?
2. Alkalosis can precipitate tetany
3. Why the human body is unable to synthesise α -linolenic acid?
4. Prolonged anticonvulsant therapy with barbiturates and phenytoin present with hypocalcemia and osteomalacia
