

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 15 = 30)

1. What are homogenous and heterogeneous immunoassays? Write the principle, technique and applications of labeled immunoassays.
2. What is ISO 9000? What are internal and external quality control methods in a biochemical lab? Compare their merits and demerits.

II. Short notes:

(10 x 5 = 50)

1. Electro endosmosis.
2. Blood collection for Biochemical analysis in Paediatric age .
3. Biogenic amines.
4. Procedures used to process solutions in a biochemical lab.
5. Non Controllable Pre analytical variables in a clinical lab.
6. Reflectance Photometry.
7. Levey Jenning chart.
8. Measurement of Thiamine and its deficiency status.
9. Point of care testing.
10. Functions of Vitamin C.

III. Reasoning Out:

(4 x 5 = 20)

1. Polyethylene Glycol (PEG 6000) is particularly useful in Immunochemical methods.
2. When collecting Blood sample uniform draw of blood must be established.
3. Affinity Chromatography is used for separation of large quantities of Protein and antibodies.
4. Glucose administration decreases symptoms of porphyrias, explain.
