(LM 148) MAY 2018 **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 15 = 30)**

1. Discuss in detail the principle, Components and applications of Atomic Absorption Spectrophotometer. Add a note on it's interferences.

2. Write in detail the controllable pre analytical variables and its control Measures in clinical biochemistry laboratory.

II. Short notes: **(10 x 5 = 50)**

1. Reagent grade water and testing for water purity.
2. Immunoradiometric Assay.
3. Synthetic Nucleotide.
4. Turbidimetry and its applications.
5. Structure and functions of immunoglobulin.
6. Reference Materials.
7. Immunofixation electrophoresis.
8. Microarray Techniques.
9. Proficiency testing and laboratory Accreditation.
10. Gibbs Donnan equilibrium.

III. Reasoning Out: **(4 x 5 = 20)**

1. Mass spectrometry has emerged as a method of choice for protein identification.
2. Acid Citrate Dextrose is preferred anti-coagulant in molecular diagnostic techniques.
3. Buffer plays an important role in conventional electrophoresis of serum protein.
4. Allosteric properties of Hemoglobin results from its quaternary structure.

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