

QP Code: 202383

Reg. No.....

**Second Year M.Sc. MLT Degree Regular/Supplementary Examinations
November 2019
(Biochemistry)**

**Paper VI - Diagnostic Biochemistry, Recent Advances in Clinical Chemistry and
Biostatics**

Time: 3 hrs.

Max. marks: 100

- *Answer all questions*
- *Draw diagrams wherever necessary*

Essays:

(10x10=100)

1. Outline the metabolic abnormalities in diabetes mellitus. Explain the clinical importance of glycated hemoglobin assay. (6+4)
2. Explain sample collection and transport for arterial blood gas analysis. Give the principles of measurement of PO₂ and PCO₂ (6+4)
3. Explain the biochemical basis of Parkinson's disease and ammonia toxicity (5+5)
4. What are tumor markers. Mention the features of ideal tumor markers. Explain the clinical significance of any three tumor markers. (2+2+6)
5. Explain the concept of total quality management in laboratory. Enumerate the elements of quality assurance (4+6)
6. Explain the procedure of reagent acceptance testing. How do you assess performance qualifications of an equipment on installation. (5+5)
7. Give the principle of mass spectrometry. Explain its instrumentation and add a note on applications
8. Describe the salient features of random access analyzers
9. How is reference interval established - Explain. Mention the reference intervals of plasma glucose, bilirubin and creatinine. (5+1+2+2)
10. What is point of care testing (POCT). What are the criteria for ideal POCT equipment. Give any three examples with principle of assay and clinical applications. (2+2+6)
