

QP Code: 101103

Reg. No.:.....

**PG Degree Regular/Supplementary Examinations in Biochemistry
(MD) July 2023**

Paper I – General Biochemistry, Enzymes & Biostatistics

Time: 3 hrs

Max marks:100

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essay:

(20)

1. Explain Isotopes, radioactive decay and half-life with examples and their research, diagnostic and treatment applications. Add a note on the biological effects of radiation.

Short essays:

(8x10=80)

2. Diagnostic accuracy, sensitivity and specificity. Explain receiver operating characteristic curve taking example of D- Dimer
3. Explain quaternary structure of proteins with examples and their importance
4. Body buffer systems and their importance in the maintenance of acid base balance
5. Immunoglobulins with examples, their structure and functions
6. Glycoproteins, examples with their biological significance. Add a note on congenital disorders of glycosylation
7. Explain the different types of haemoglobin found in blood during intrauterine life, neonatal period and adult life. Add a note on haemoglobin derivatives with their biological importance
8. Major intracellular organelles, their markers and functions
9. Isoenzymes with examples. Add a note on importance of enzyme estimation in COVID-19 infection
