



BIOCHEMISTRY
PAPER – I

BCHEM/D/14/03/I

Time : 3 hours
Max. Marks : 100

Important instructions:

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts wherever appropriate.

Write short notes on:

1. Mechanism of "suicide inhibition" of enzymes, giving examples and their significance. 10
2. Usefulness of biomarkers in risk-stratification in acute coronary syndrome. 10
3. Functional tests of the adrenal cortex. 10
4. Role of allosteric enzymes in the regulation of metabolic pathways. Give suitable examples. 8+2
5. Structure and biomedical functions of polysaccharides. 4+6
6. Henderson – Hasselbalch equation and role of buffers in maintaining acid base balance. 3+7
7. Different sampling methods followed in clinical trials. 10
8. Briefly describe Westgard's rules for QC rejection. Differentiate between Random errors and systematic errors. 7+3
9. Validity of a laboratory test. 10
10. Explain protein folding under the following headings: 3+3+4
 - a) Mechanism
 - b) Role of chaperones
 - c) Diseases associated with misfolded proteins
