

**BIOCHEMISTRY**

**PAPER – III**

Time : 3 hours  
Max. Marks : 100

BIO/D/17/03/III

**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. Role of chaperones in protein folding and diseases associated with protein misfolding. | 6+4   |
| 2. Define mutation, different types and its manifestations.                               | 1+3+6 |
| 3. DNA damage and repair mechanisms, and clinical aspects.                                | 3+3+4 |
| 4. Monoclonal antibody, their uses and related clinical aspects.                          | 6+4   |
| 5. Immunological tests for thyroid functions.                                             | 10    |
| 6. Explain tumour index substances, their role in diagnosis and prognosis.                | 6+4   |
| 7. a) Telomerase activity in ageing.<br>b) Anticancer drugs influencing cell cycle.       | 5+5   |
| 8. a) Apoptosis<br>b) Immunological memory                                                | 5+5   |
| 9. a) Cell mediated immunity<br>b) Complement system                                      | 5+5   |
| 10. a) Mitochondrial DNA<br>b) Protein targeting                                          | 5+5   |

\*\*\*\*\*