

**BIOCHEMISTRY**

**PAPER-III**

Time: 3 hours  
Max. Marks:100

BCHEM/D/20/03/III

**Important Instructions:**

- *You are provided with 5 answer sheet booklets. Each individual answer sheet booklet consists of 10 pages excluding the covering jackets.*
- *Answers to all the questions must be attempted within these 5 answer sheet booklets which must be later tagged together at the end of the exam.*
- *No additional supplementary answer sheet booklet will be provided.*
- *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. Prostate specific antigen: its physiological function, laboratory assay methods and interpretation of laboratory test result. 10
2. Gene amplification: definition, its mechanism, physiological and pathological significance. 10
3. DNA vaccines. 10
4. Genetic basis and laboratory diagnosis of cystic fibrosis. 10
5. Carbohydrate antigens as tumour markers. 10
6. Chemiluminiscence based immuno assay techniques. 10
7. Role of complements in health and diseases. 10
8. Antibody dependent cellular cytotoxicity. 10
9. Metabolic reprogramming of cancer cells. 10
10. Regulation of cell cycle and anticancer drugs affecting cell cycle. 10

\*\*\*\*\*