



Bachelor of Science (B.Sc.) Semester-IV Examination
ZOOLOGY
(Molecular Biology & Immunology)
Paper-II

Time—Three Hours] [Maximum Marks—50

N.B. :- (1) **ALL** questions are compulsory.
(2) All questions carry equal marks.
(3) Illustrate your answers with suitable diagrams.

1. Describe the Watson and Crick's model of DNA. 10

OR

Write notes on :

(A) mRNA and its functions. 5
(B) Griffith's transformation experiment. 5
2. Give an account of translation mechanism of protein synthesis. 10

OR

Write notes on :

(A) Wobble hypothesis. 5
(B) Meselson and Stahl's experiment. 5



3. Describe in brief the structure, types and functions of antibody. 10

OR

Write notes on :

(A) Organs of immune system. 5

(B) Precipitation reaction. 5

4. Give an account of classical and alternative complement pathways. 10

OR

Write notes on :

(A) Cell mediated immune response. 5

(B) Cytokine related diseases. 5

5. Write four or five lines on the following : (any Ten) 10

- (i) Operator gene
- (ii) Z-DNA
- (iii) tRNA
- (iv) Structural gene
- (v) Initiation codon
- (vi) Bidirectional replication
- (vii) Inflammation
- (viii) Immunodiffusion
- (ix) Types of antigen
- (x) Opsonization
- (xi) Interferon
- (xii) Rheumatoid arthritis.