

QP Code: 201383

Reg. No.....

**Second Year M.Sc. MLT Degree Regular/Supplementary Examinations
September 2024**

(Biochemistry)

Paper V - Molecular Biology & Immunology

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 diagrams wherever necessary*

Essays:

(10x10=100)

1. What is innate immunity. Discuss the role of barriers in innate immunity. (2+8)
2. What is operon. Describe the operon concept of gene regulation with example. (1+9)
3. Discuss about maternal serum screening tests for foetal defects.
4. Describe the steps in PCR and add a note on its applications in clinical medicine. (7+3)
5. Enumerate the different types of DNA damage. Describe the nucleotide excision repair and add a note on diseases associated with defective DNA repair mechanisms. (2+5+3)
6. Describe the principles of heredity and discuss about the X linked recessive inheritance. (4+6)
7. Describe the structure and functions of immunoglobulins. (6+4)
8. Explain the procedure for gene therapy and write about gene editing tools. (5+5)
9. Describe the events between two mitotic divisions and add a note on its control points. (7+3)
10. Describe the immunofixation electrophoresis and its application (7+3)
