

QP Code: 201383

Reg. No.....

**Second Year M.Sc. MLT Degree Regular/Supplementary Examinations  
September 2023  
(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. Explain the types of gene mutations with examples.
2. Explain the post translational modifications with examples
3. Outline the process of transcription. Add a note on reverse transcription. (6+4)
4. Explain the principle of immune-electrophoresis. Mention the various types. Add a note on applications of immune electrophoresis. (5+2+3)
5. Explain gene library and DNA sequencing (3+7)
6. Describe the principle of nephelometric immunoassay (ECLIA). Add a note on its applications. (7+3)
7. What are complements. Explain the components of complement system and describe the physiological role of this system and its clinical significance (1+3+3+3)
8. Explain cloning strategies. Describe in situ hybridization (6+4)
9. Describe the pre natal diagnosis of genetic diseases
10. What are blot techniques. Write in details about different blot techniques. (4+6)

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