

QP Code : 201383

Reg . No.....

**Second Year M.Sc. MLT Degree Examinations – February 2015
(Biochemistry)**

PAPER – V MOLECULAR BIOLOGY & IMMUNOLOGY

Time : 3 hrs.

Max. marks : 100

- *Answer all questions*
- *Draw diagrams wherever necessary*

Essays:

(10x10 = 100)

1. Explain the process of transcription. What is the role of enhancers and promoter sequences .
2. Explain the technique of immunoelectrophoresis and add a note on its applications.
3. Describe the DNA sequencing techniques and explain DNA finger printing.
4. Draw the cell cycle and explain the eukaryotic replication.
5. Explain the general structure of immuno-globulins . Mention the properties and functions of various types of immuno-globulins.
6. Explain the role of cytokines and interferons
7. Indicate the mechanism of action and clinical application of :
 - Inhibitors of protein synthesis
 - Inhibitors of transcription
8. What are gene mutations and explain the types of gene mutations with suitable examples
9. Explain the regulation of gene expression mentioning lac operon as an example.
10. What is reverse transcriptase. Explain the applications of this enzyme in molecular techniques.
