

**Roll No.**

**Total No. of Pages : 01**

**Total No. of Questions : 08**

**M.Sc. MLS (Biochemistry) (Sem.-3)**

# APPLIED MOLECULAR BIOLOGY

**Subject Code : MMLT-302-18**

**M.Code : 76877**

**Date of Examination : 14-12-22**

**Time : 3 Hrs.**

**Max. Marks : 70**

**INSTRUCTIONS TO CANDIDATES :**

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries FOURTEEN marks.

1. **Write a note on :**
  - (a) Auto regulation
  - (b) Chromosome mapping.
2. Write a note on southern blotting, DNA sequencing, and satellite DNA.
3. What are the uses of linkers, adapters, and homopolymer tailing in creating rDNA molecule?
4. Explain in detail :
  - (a) Gene libraries
  - (b) Transformation and transfection.
5. Explain the applications of recombinant DNA technology in medicines.
6. Write a note on :
  - (a) Regulation of gene expression
  - (b) DNA finger printing.
7. Explain in detail various tools of genetic engineering.
8. Write a note on-isolation, handling, and quantification of nucleic acids. How are cosmid used as vehicle of cloning?

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**