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**MBH 451**



**II Semester M.Sc. Degree Examination, September/October 2022**  
**(CBCS Scheme)**  
**MICROBIOLOGY**  
**Genetic Engineering**

Time : 3 Hours

Max. Marks : 70

I. Write brief notes on **any five** of the following : **(5×3=15)**

- 1) pBR322.
- 2) RFLP.
- 3) TIGR microbial data base.
- 4) Insertion of desired DNA into vector.
- 5) M13 Phage vector.
- 6) ISSR.
- 7) Antisense technology.

II. Write notes on **any five** of the following : **(5×5=25)**

- 8) Properties of cloning vectors.
- 9) Applications of shuttle vectors.
- 10) Selection methods of recombinants.
- 11) Cloning expression in yeast.
- 12) Significance of Ti plasmid.
- 13) Analysis of genome sequences.
- 14) Principle of gene cloning strategies.

III. Answer **any three** of the following : **(3×10=30)**

- 15) Describe the structural and functional properties of mammalian expression vectors.
  - 16) Discuss the artificial methods of transformation of vectors.
  - 17) Give a detailed account on the principle and applications of microarray.
  - 18) Explain the construction of cDNA library.
  - 19) Discuss the ethical, legal, social and environmental issues of rDNA technology.
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