



AAN-464

Seat No. _____

B. Sc. (Sem. V) Examination

October / November - 2016

MI-502 : Microbiology

(Techniques in Gene Transfer)

Time : 3 Hours]

[Total Marks : 70

- 1 (a) Answer any two : 15
- (1) Properties of Ti plasmids
 - (2) Types of Transposons
 - (3) Discuss the process of transfer of plasmid DNA.
- (b) Answer in brief. 2
- (1) RTF
 - (2) Who discovered Transposons?
- 2 (a) Answer any two : 15
- (1) Discuss the experiment leading to the discovery of Transformation.
 - (2) Gene- Mapping by Transformation.
 - (3) Molecular mechanism of transformation.
- (b) Answer in Brief. 2
- (1) Competence
 - (2) Who proved that DNA and not RNA or Protein is the genetic material ?

- 3 (a) Answer any **two** : 15
- (1) Generalized Transduction in P1 Phage
 - (2) Specialized Transduction
 - (3) Co-transduction and linkage.
- (b) Answer in brief : 3
- (1) What are High Frequency Transducing (HFT) Lysates ?
 - (2) Gal and Bio Genes
- 4 (a) Answer any two : 15
- (1) General mechanism of conjugation.
 - (2) Hfr Strains
 - (3) Interrupted mating
- (b) Answer in brief : 3
- (1) Rec A Protein
 - (2) Recessive marker.
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