

5556060

Seat No. _____

M. Sc. (Part - II) Examination

April / May – 2003

Life Sciences : Paper - IV

(Applied Microbiology)

Time : 3 Hours]

[Total Marks : 100

Instruction : All questions carry **equal** marks.

1 Describe scope and importance of any **two** :

- (a) Recombinant DNA Technology.
- (b) Medical microbiology.
- (c) Findings of Louis Pasteur.
- (d) Microorganisms in waste treatment.

2 Discuss typical bacterial cell and give importance of various parts.

OR

2 Describe locomotory and protective parts of bacteria.

3 Describe any **two** :

- (a) Generation time and generations in bacteria.
- (b) Selective and Differential media.
- (c) Direct methods of measurement of microbial growth.
- (d) Steam sterilization to control microbial growth.

4 Write in brief any **two** :

- (a) Phage T₄.
- (b) Spontaneous mutation.
- (c) Transformation process.
- (d) Bacterial DNA.

5 Describe Beer and Vinegar production using yeast.

OR

5 Discuss role of microorganisms in increasing soil fertility. Give specific examples.