

55013

Seat No. _____

M. Sc. (Part - I) Examination

April / May – 2003

Environmental Science : Paper - I

(Environmental Zoology & Environmental Microbiology)

Time : **3 Hours**]

[Total Marks : **75**

**NB: All questions carry equal marks.
All questions are compulsory.
Illustrate your answers with neat diagrams wherever necessary**

1. Describe: a). Formation of urine
b). Synaptic transmission

OR

1. Describe: a). Cardiac cycle
b). Ultrastructure of muscle
2. Write notes on: a). Concept and classification of ecosystem
b). Estuarine ecosystem

OR

2. Write notes on: a). C – 19 Steroidogenesis
b). Biotransformation
3. Write **Any two** on : a). Describe Lag and Log phase in bacteria
b). Enlist and explain methods used in direct measurement of microbial growth
c). Role of microorganism in environment
d). Describe contribution of Pasteur and R. Koch
4. Describe **Any two**: a). Generalized transduction processes
b). Process of transformation in bacteria
c). Steam sterilization and its importance
d). Bacteriophage T₄
5. Write short notes on **Any three** of the following:
 - a). Effects of mercury and lead in animals
 - b). Nitrogen cycle
 - c). Ultrastructure of Cell
 - d). Differential and enrichment media in microbial work
 - e). Isolation techniques for bacterial culture
 - f). Draw and describe prokaryotic cell