M. Sc. (Part-I) Examination
April / May – 2003

Biotechnology : Paper – III
(Microbiology & Industrial Microbiology)

Time : 3 Hours] [Total Marks : 100

1 Describe structure and give functions of any two :
   (a) Bacterial spore
   (b) Locomotary organ
   (c) Cell wall of prokaryots
   (d) Rickettsia.

2 Discuss any two :
   (a) Synchronized culture
   (b) Effect of physical perametors on bacterial growth
   (c) Continuous culture of bacteria
   (d) Nitrogen fixation by symbiotic organisms.

3 Describe any two :
   (a) Importance of microbial diversity study
   (b) Significant points to be considered during bacterial diversity study.
   (c) Portal of entry and exist. Give their importance in spreading infection.
   (d) What are extremophiles ? Explain any one group and give importance.

4 Discuss microbial production and recovery of citric acid or Ethanol.

5 Write any two :
   (a) Mechanisms of bioleucheruj
   (b) Dump leuchery process
   (c) S.C.P.
   (d) Microbial production of Beer.