MICROBIOLOGY - IV

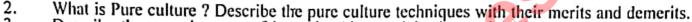
Semester - II

Time: Three Hours]

Note: Attempt two questions each from Section A and B carrying 8 marks each, and the entire Section C consisting of 10 short answer type questions carrying 2 marks each.

Section - A

Describe the Clonial and Borth culture characteristics. ١.



3. Describe the growth curve of bacteria. Also explain the mathmatical expression of bacterial

growth.
What is Minimal medium? Describe the requirement of nutrients for microbs. 4:

Section - B

5. Describe the process of transformation in bacteria.

6.

Discuss Spontaneous and Non-spontaneous mutations in microbs.
What is Nitrogen fixation? Describe the nitrogen fixation mechanism with structure and function 7. of Nitrogenase.

Describe the microbilogy and epidemiology of Aflatoxins and Algal toxins. 8.

Section - C

9. Explain briefly:

- (a) Freeze drying
 - **(b)** Enrichment medium. Nutritional categories of bacteria.
- (c) Synchronous growth. (e) Synchronous growth. (f) Mutagenesis. Nitrogen fixing microorganism (Symbiotic and Non-Symbiotic).
 - (d) Colony characteristics.

- Gnotobiotic life.
- Specialized transduction.
- Chemical mutagenesis.