

B.Sc. 1st Semester (Honours) Examination-2022-23

MICROBIOLOGY

Course ID : 12212 Course Code : SH/MCB/102/C-2

Course Title : Bacteriology (New)

Time : 1 Hour 15 Minutes

Full Marks : 25

The figures in the right hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Unit-I

1. Answer any *five* questions : 1×5=5

- (a) What do you mean by generation time?
- (b) Distinguish between selective and differential media.
- (c) Mention two important characters of archaebacteria.
- (d) What do you mean by bacterial strain?

- (e) What do you mean by synchronous culture?
- (f) What is phenol co-efficient?
- (g) What are mesosomes?
- (h) What do you mean by lyophilization?

Unit-II

2. Answer any *two* questions : 5×2=10
- (a) Give one example each for Gram positive and Gram negative endospore forming bacteria. Why bacterial endospores are so resistant in nature? 2+3
- (b) Name two acid fast bacteria. How do you distinguish them from non-acid fast bacteria? 2+3
- (c) What is periplasmic space? Write a short note on outer membrane of Gram negative bacteria. 1+4
- (d) Write a short note on Chemical methods for controlling micro organisms. 1+4

Unit-III

3. Answer any *one* question : 10×1=10
- (a) Discuss the ultra structure of a typical Gram-negative bacterial flagellum with suitable diagram. 6+4
- (b) What are the methods by which you can cultivate anaerobic bacteria in laboratory? Briefly describe different procedure for isolation of pure culture. 3+7