

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

THIRD SEMESTER – APRIL 2018

PB 3510– MICROBIOLOGY

Date: 05-05-2018
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

PART – A

ANSWER THE FOLLOWING, EACH WITHIN 50 WORDS ONLY: (10 x 2 = 20)

1. Give the contribution of Joseph Lister.
2. Distinguish between Eubacteria and Archaeobacteria
3. Define Differential media. Give an example.
4. What is meant by Pleomorphic? Give an example.
5. Define Fermentation.
6. What is anoxygenic photosynthesis? Give an example.
7. Define Nucleocapsid.
8. What is Bacteriophage?
9. What is BOD?
10. Define Rhizosphere.

PART – B

ANSWER THE FOLLOWING, EACH ANSWER WITHIN 500 WORDS, DRAW DIAGRAMS

WHEREVER NECESSARY:

(5 x 7 = 35)

- 11.(a) Explain different staining techniques and their applications.

(OR)

- (b) Give an account of the important characteristic features of Prokaryotes.

12. (a) Classify and explain the major nutritional types of Bacteria.

(OR)

- (b) Give an account on the isolation, maintenance and preservation of pure culture of Bacteria.

- 13.(a) List the Microbial enzymes and add a note on their applications.

(OR)

(b) Explain bacterial transformation.

14.(a) Enumerate the general characteristics of Viruses.

(OR)

(b) Draw and explain the structure of T₄Bacteriophage.

15. (a) Give an account of Alcohol production.

(OR)

(b) Explain VAM fungi and its importance

PART-C

**ANSWER ANY THREE OF THE FOLLOWING, EACH WITH 1200 WORDS, DRAW
DIAGRAMS WHEREVER NECESSARY: (3 x 15 x 45)**

16. What are the notable contributions of Louis Pasteur, Robert Koch and Edward Jenner?

17. Draw and explain the ultrastructure of Bacteria.

18. Explain Bacterial Conjugation.

19. Write briefly the cultivation of Viruses.

20. Give an account on the methods of Food preservation from microbial spoilage.
