



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY & BIOTECH.

THIRD SEMESTER – NOVEMBER 2013

PB 3510 – MICROBIOLOGY

Date : 06/11/2013
Time : 9:00 - 12:00

Dept. No.

Max. : 100 Marks

PART – A

ANSWER THE FOLLOWING, EACH WITHIN 50 WORDS ONLY:

(10 x 2 = 20 marks)

01. What are Mycoplasma?
02. Write about Protista.
03. What is fission?
04. Write notes on autotrophic bacteria.
05. What is Glycolysis?
06. Define fermentation.
07. What is a virion?
08. Distinguish Ribovira from Deoxyvira.
09. What is biodegradation?
10. What is BOD?

PART – B

**ANSWER THE FOLLOWING, EACH WITHIN 500 WORDS.
DRAW DIAGRAMS WHEREVER NECESSARY.**

(5 x 7 = 35 marks)

11. a. Write an account on Gram's staining technique.
(OR)
b. Give the classification of bacteria based on their shape.
12. a. Write notes on sigmoid growth curve.
(OR)
b. Give an illustrated account on the ultra structure of a bacterial cell.
13. a. Explain the Cyclic photophosphorylation in photosynthetic bacteria.
(OR)
b. Describe generalised transduction with suitable diagram.
14. a. List out the general characters of Viruses.
(OR)
b. Write an account on HIV vaccines.
15. a. What is VAM fungi? Explain.
(OR)
b. Write notes on the production of penicillin.

PART – C

ANSWER ANY THREE OF THE FOLLOWING, EACH WITHIN 1200 WORDS.

DRAW DIAGRAMS WHEREVER NECESSARY:

(3 x 15 = 45 marks)

16. Enumerate the general characteristics of prokaryotic microorganisms.
17. Give an account on the methods of isolation, maintenance and preservation of pure culture.
18. Write notes on:
 - (a) Conjugation.
 - (b) Transformation.
19. Describe the morphology and structure of T₄ bacteriophage.
20. Write an essay on microbial spoilage of food and the methods of preservation.

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