

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



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

THIRD SEMESTER – APRIL 2016

PB 3510 – MICROBIOLOGY

Date: 02-05-2016

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

PART-A

(10 x 2= 20marks)

ANSWER THE FOLLOWING, EACH WITHIN 50 WORDS ONLY

1. What is pasteurization?
2. Give the major divisions in Bergey's manual.
3. What are mesosomes?
4. Give the role of selective medium.
5. Comment on fermentation.
6. What is feedback inhibition?
7. Differentiate virion and vaccine.
8. Write notes on plaque formation.
9. Comment on bioflocculation.
10. Give the uses of vinegar.

PART –B

(5 x 7 =35marks)

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

11. a) Write in detail Whittaker's five kingdom concept.
(OR)
b) Write short notes on differential staining with gram's staining as example.
12. a) Classify bacteria based on shape and arrangement.
(OR)
b) Describe the different phases of bacterial growth curve.
13. a) Explain bacterial transformation through Griffith experiment.
(OR)
b) Explain the light reaction in photosynthetic bacteria. How is it different from eukaryotes?
14. a) Describe the techniques used for cultivating animal viruses in laboratory.
(OR)
b) Write short account on vaccines and their role in immunity.
15. a) Explain the biogeochemical cycle with reference to nitrogen cycle.
(OR)
b) Write about the industrial production of penicillin.

PART-C

(3 x 15 =45marks)

**ANSWER ANY THREE OF THE FOLLOWING, EACH WITHIN 1200 WORDS,
DRAW DIAGRAMS WHEREVER NECESSARY**

16. Write an essay on the scopes of microbiology.
17. What are pure cultures? How will you isolate, maintain and preserve a pure culture?
18. Give a detailed account on Bacterial Conjugation.
19. Draw and describe lytic and lysogenic cycles in viral replication.
20. Describe in detail, the sewage disposal and treatment.

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