



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – CHEMISTRY, ADV. ZOOLOGY

THIRD SEMESTER – NOVEMBER 2014

PB 3206 - GENERAL MICROBIOLOGY

Date : 08/11/2014

Dept. No.

Max. : 100 Marks

Time : 09:00-12:00

PART A

Answer the following, each within about 50 words only:

(10 x 2 = 20)

1. What are autotrophs?
2. Give the binomials of any 2 fungi.
3. Define plasmids. Give an example.
4. Define pure cultures.
5. What is DNA replication?
6. Define operon.
7. Mention any two carbon sources for the microbial culture media.
8. Name the pathogen of little leaf of brinjal.
9. What are vaccines?
10. Define antibiotics.

PART B

Answer the following, each answer within 500 words; draw diagrams and flowcharts wherever necessary:

(5 x 7 = 35)

11. a. Give an outline on the classification of fungi.
Or
b. Enumerate the characteristic features of viruses.
12. a. Classify bacteria based on their number, shapes and flagellation.
Or
b. Briefly explain the stages in of microbial growth curve.
13. a. Write notes on the rolling circle model of replication.
Or
b. Describe the *lac operon* as a model system for gene regulation.
14. a. Give an account of citrus canker disease.
Or
b. Enumerate the symptoms and suggest control measures of tobacco mosaic viral disease.
15. a. Enlist the different types of vaccines.
Or
b. Explain the various applications of microbial enzymes.

PART C

Answer any three of the following, each within 1200 words; draw diagrams and flowcharts wherever necessary:

(3 x 15 = 45)

16. Give the classification and the salient features of algae.
17. Discuss in detail on the ultrastructure of the bacterial cell.
18. Describe the gene transfer methods in bacteria.
19. Describe the methods of measuring microbial growth.
20. Explain how food is preserved from microbial spoilage.
