



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – ADVANCED ZOOLOGY AND CHEMISTRY

THIRD SEMESTER – APRIL 2018

PB 3206- GENERAL MICROBIOLOGY

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

Dept. No.

Max. : 100 Marks

PART – A

(10 x 2 = 20 Marks)

Answer the following, each within 50 words.

1. Write notes on Whittaker's classification.
2. Give two salient features of prokaryotes.
3. Comment on binary fission.
4. Mention the role of differential medium.
5. List the enzymes involved in DNA replication.
6. Define the term operon.
7. Mention the symptoms of citrus canker.
8. Define heteroecious fungus.
9. What are vaccines?
10. Compare mutualism and symbiosis.

PART – B

(5 X 7 = 35 Marks)

Answer the following, each within 500 words; Draw diagrams and flowcharts wherever necessary

11. (a) Tabulate the general classification of fungi.
Or
(b) List out 10 salient features of viruses.
12. (a) Write notes on microbial growth measurements by cell number and cell mass.
Or
(b) Explain the classification of bacteria based on nutritional requirements.
13. (a) Describe the process of bacterial conjugation.
Or
(b) Write briefly on the regulation of the lac operon.
14. (a) Highlight on the pathogen, symptoms and control of TMV.
Or
(b) Write short notes on the little leaf of brinjal.
15. (a) Write an account on the application of microbial enzymes.
Or
(b) Briefly write about the production of penicillin.

PART – C

(3 X 15 = 45 Marks)

Answer **any three** of the following, each within 1200 words. Draw diagrams and flowcharts wherever necessary

16. Give a general account on the types and salient feature of algae and bacteria with examples.
17. Describe the ultra-structure of a bacterial cell.
18. Write in detail on the types of bacterial transduction.
19. Elaborate on the lifecycle of *Puccinia*.
20. Explain the process of wastewater treatment.
