



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

THIRD SEMESTER – APRIL 2014

PB 3206 - GENERAL MICROBIOLOGY

Date : 10/04/2014

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. Write short notes on actinomycetes.
2. Differentiate autotrophs from heterotrophs.
3. Mention the four stages of microbial growth.
4. What are axenic cultures?
5. What is meant by nucleoid?
6. Define the term conjugation.
7. Write notes on Tobacco Mosaic virus.
8. Cite the pathogen of wheat rust.
9. Define pasteurization.
10. What are vaccines?

PART – B

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

(5 X 7 = 35)

11. (a) Discuss the salient features of microalgae.
Or
(b) Write short notes on bacterial classification.
12. (a) What are pure cultures? Give the methods of their maintenance.
Or
(b) Draw and describe the structure of a bacterial cell.
13. (a) Explain DNA replication in bacteria.
Or
(b) Describe transformation in bacteria.
14. (a) Mention briefly the pathogen, symptoms and control measures of Citrus canker.
Or
(b) Give an account of the pathogen, symptoms and control measures of Little leaf of Brinjal.

15. (a) Give a short account on microbial enzymes and their uses.

Or

(b) Write short notes on the microbial spoilage of foods.

PART – C

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

(3 X 15 = 45)

16. Give a detailed account on the structure, types and classification of viruses.

17. Describe the methods of measurement of microbial growth.

18. Give an account of the genes and regulation of the lac operon.

19. Mention the pathogen and describe the symptoms and control measures of the rust disease of wheat.

20. Describe the production methodology of the antibiotic penicillin.