LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

THIRD SEMESTER – **NOVEMBER 2013**

PB 3206 - GENERAL MICROBIOLOGY

Date : 13/11/2013 Dept. No. Max. : 100 Marks

Time : 9:00 - 12:00

PART – A

Answer the following, each within 50 words **(10 x2 = 20)**

1. What are actinomycetes?
2. Write notes on mycoplasmas.
3. Define microbial growth.
4. Name any two media used in microbiology.
5. Write short notes on conjugation.
6. Define the process of DNA replication?
7. Differentiate semisynthetic media from synthetic media.
8. Mention the causal agents of citrus canker and little leaf of brinjal disease.
9. What are trickling filters?
10. Mention the industrial methodology of enzyme production from microbial sources.

PART – B

Answer the following, each within 500 words. Draw diagrams and flowcharts wherever necessary: **(5 x 7 = 35)**

11. (a) List out the salient features of fungi.

    Or

    (b) Write short notes on structure and types of viruses.

12. (a) Briefly describe nutrition in bacteria.

    Or

    (b) Draw and describe the structure of flagella.

13. (a) Describe transformation in bacteria.

    Or

    (b) Write notes on the lac operon.

14. (a) Give an account on the little leaf of brinjal disease.

    Or

    (b) Explain briefly on the microbial spoilage of food.

15. (a) Brief the nutritional requirements of microbes and the types of media.

Or

(b) Explain the microbiology of wastewater treatment.

PART – C

Answer <u>any three</u> of the following, each within 1200 words. Draw diagrams and flowcharts wherever necessary (3 x 15 = 45)

16. Discuss in detail, bacterial classification based on flagellation, shapes and arrangement of cells.
17. Describe in detail on bacterial reproduction.
18. Give a detailed account ongeneralized and specialized transduction in bacteria.
19. Describe the types of spores of *Pucciniagraminis*while inciting the rust disease.
20. Elaborate on the production of microbial enzymes with their application.

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