



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

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

**THIRD SEMESTER – NOVEMBER 2016**

**PB 3206/PB 3200 – GENERAL MICROBIOLOGY**

Date: 10-11-2016

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

**Part - A**

*Answer the following, each within 50 words.*

**(10 x 2 = 20 Marks)**

1. Define thallus.
2. What are plasmids?
3. Mention any two differences between fimbriae and pili.
4. What is binary fission?
5. Write notes on bacterial transformation.
6. What do you mean by  $F^+$ ,  $F^-$  and Hfr cell?
7. Draw the structure of *Mycoplasma*.
8. Give any two control measures for the disease 'Little leaf of Brinjal'.
9. Comment on  $\beta$ -lactam ring.
10. Write notes on Antibiosis.

**Part – B**

**(5 x 7 = 35 Marks)**

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

11. (a) Chart out the classification of Viruses.  
Or  
(b) List out the salient features of Fungi.
12. (a) Describe any two methods for microbial growth.  
Or  
(b) List out the various nutritional requirements of bacteria.
13. (a) Distinguish between generalized and specialized transduction.  
Or  
(b) Describe the genetic material in bacteria.
14. (a) Describe the host, pathogen, symptoms and control measures for Tobacco mosaic disease.  
Or  
(b) Explain the types of spores produced by *Puccinia* on wheat.
15. (a) Give an account on industrial production of penicillin.  
Or  
(b) Write notes on food preservation methods.

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

16. Give a detailed account on classification of bacteria.
17. Describe the ultra-structure of a bacterial cell.
18. Write detailed notes on the pathogen, life cycle, symptoms and control measures for citrus canker.
19. What is positive and negative regulation? Explain the regulation of *lac* operon in detail.
20. Describe biogeochemical cycle with reference to nitrogen cycle.

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