



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SIXTH SEMESTER – APRIL 2017

PB 6613- MICROBIAL TECHNOLOGY

Date: 22-04-2017
09:00-12:00

Dept. No.

Max. : 100 Marks

PART- A (10×2=20marks)

Answer the following, each within 50 words.

1. What is microbial biomass?
2. Define fermentation.
3. Comment on Asepsis.
4. What are the types of agitators you have studied?
5. Write notes on Mycoproteins.
6. Distinguish between primary and secondary metabolites.
7. Define avaccine.
8. What are steroids?
9. Mention the microbial resources and uses of Glutamic acid.
10. Mention the functions of amylase.

PART- B (5×7=35marks)

Answer the following, each within 500 words. Draw diagrams and flow charts wherever necessary.

11. (a) Explain the methodology and applications of any one recombinant products studied by you.
OR
(b) Describe the nomenclature and functions of enzymes.
12. (a) Explain the technique of sterilizing a culture media.
OR
(b) Write notes on the substrates used for media preparation.
13. (a) Explain the production of alcohol by fermentation.
OR
(b) Write notes on cheese production.
14. (a) Discuss the industrial production of vitamin B₁₂.
OR
(b) What is Hep B vaccine? Explain its production.
15. (a) What is a biofertilizer? Is it beneficial or harmful- justify.
OR
(b) Compare biofuels and bioplastics.

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

16. Discuss the isolation, preservation and improvement of industrially important microorganisms.
17. Write an essay on types of fermentors.
18. Explain in detail the mass production of *Spirulina*(SCP).
19. What are antibiotics? Explain the industrial production of Penicillin.
20. Explain the microbial technology involved in the production and recovery of citric acid. Add a note on its significances.
