

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



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

SIXTH SEMESTER – APRIL 2023

16/17/18UPB6MC03 – MICROBIAL TECHNOLOGY

Date: 05-05-2023

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

PART A

Answer the following, each within 50 words.

(10 x 2 = 20 marks)

1. Define bioconversion.
2. What is idiophase?
3. Define lyophilization.
4. Define downstream processing.
5. Mention the features of SCP.
6. What are probiotics?
7. Define antibiosis.
8. What are vitamins?
9. Mention the uses of xanthan.
10. List out the uses of pectinase.

PART B

Answer the following, each within 500 words.

Draw diagrams / flow charts wherever necessary.

(5 x 7 = 35 marks)

11. a) Explain the methods for preservation of microorganisms used in industries.

(or)

b) Write notes on microbial biomass.
12. a) Give an account on carbon and nitrogen sources used in medium formulations

(or)

b) Write notes on airlift and bubble column reactor.
13. a) Explain in detail about yogurt production.

(or)

b) Give an account on beer production.
14. a) Write notes on the production of Penicillin.

(or)

b) Give an account on Hepatitis B vaccine production.
15. a) Explain the process of glutamic acid production.

(or)

b) Write notes on protease and amylases from microorganisms.

PART C

Answer any three of the following, each within 1200 words.

Draw diagrams / flow charts wherever necessary.

(3 x 15= 45 marks)

16. Discuss in detail about the range of products from microorganisms.
17. Explain methods used for improving microbial strains.
18. Write notes on: a) cheese production b) wine production.
19. Give an account on the production of recombinant insulin.
20. Explain in detail about the production of: a) biopolymers b) biofertilizers.
