LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600 034

DEGREE EXAMINATION – **PLANT BIOLOGY AND PLANT BIOTECHNOLOGY**

SIXTH SEMESTER - APRIL 2019

16UPB6MC03/ PB 6613 - MICROBIAL TECHNOLOGY

Date: 10-04-2019	Dept. No.	Max.: 100 Marks
Time: 09:00-12:00		

PART-A

Answer the following, each within 50 words.

 $(10 \times 2=20 \text{marks})$

- 1. What is microbial technology?
- 2. What are recombinant products?
- 3. Comment on Asepsis.
- 4. What is the function of an agitator?
- 5. Define mycoproteins.
- 6. What is yogurt?
- 7. Define avaccine.
- 8. Mention the role of insulin.
- 9. Name any two Bioplastics.
- 10. Mention the functions of glutamic acid.

PART-B

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

 $(5 \times 7 = 35 \text{ marks})$

11. (a) Explain the methodology and applications of microbial biomass.

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- (b) Describe the process of preserving microbial cultueres.
- 12. (a) Explain the technique of sterilizing the glassware used in a laboratory.

OR

- (b) Mention few substrates used for solid media preparation.
- 13. (a) Explain the production of wine by fermentation.

OR

- (b) Write notes on mass cultivation of Spirulina.
- 14. (a) What is Hep B vaccine? Add a note on its production and application.

OF

- (b)Explain the industrial production of penicillin.
- 15. (a) What is a primary metabolite? Explain the industrial production of citric acid.

OR

(b) Biofuels are they beneficial and ecofriendly-Justify.

PART-C

Answer <u>any three</u> of the following,	each within 1200	words. Draw	diagrams v	wherever r	ecessary.
				$(3 \times 15=4)$	5 marks)

- 16. Explain the process of improvement of industrially important microorganisms.
- 17. Write an essay on types of fermentors.
- 18. Explain in detail the mass production of cheese.
- 19. Discuss the industrial production of vitamin B_{12} .
- 20. Explain the microbial production and applications of amylase and protease.

