



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

U.G. DEGREE EXAMINATION – ALLIED

SECOND SEMESTER – APRIL 2022

16/17/18UPB2AL01 – APPLIED MICROBIOLOGY

Date: 27-06-2022

Dept. No.

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

PART – A

Answer the following, each within 50 words.

(10 x 2 = 20 Marks)

1. Comment on Whittaker's classification
2. List the salient features of viruses.
3. Mention the stages of normal growth curve.
4. Define pure culture technique.
5. Write note on batch fermentation.
6. What is meant by down-stream process?
7. Give the applications of biosensors.
8. List the uses of amylase.
9. What is bioflocculation?
10. Enumerate the types of biofuels.

PART – B

Answer the following, each within 500 words.

Draw diagrams / flow charts wherever necessary.

(5 x 7= 35 Marks)

11. a. Outline the classification of fungi. Mention the characteristics of each major divisions.
(or)
b. Tabulate the salient features of algae with respective divisions.
12. a. Describe the types of microbes based on its nutritional requirements.
(or)
b. Write short notes on the gene regulation mechanism by lac operon model.
13. a. Elaborate on the cheapest raw materials used for industrial fermentation.
(or)
b. Briefly explain about the methods of strain improvement of industrial microbes.
14. a. Chart out the procedure for industrial citric acid production.
(or)
b. How wine is produced in large scale in industries?
15. a. Cite the biochemical reactions takes place during biomineralization.
(or)
b. High light the process that takes place during secondary treatment of sewage.

PART – C

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

Draw diagrams / flow charts wherever necessary.

(3 x 15= 45 Marks)

16. Describe the classification of bacteria according to Bergy's Manual of Systematic bacteriology.
17. Illustrate and explain the ultra-structure of a bacterial cell.
18. Elaborate on the structure and functions of an industrial fermenter.
19. Chart out the production procedure of Cheese.
20. Give a detailed account on bioremediation and its types.

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