K21U 4555

Reg. No. : .....

Name : .....

V Semester B.Sc. Degree CBCSS (OBE) Regular Examination, November 2021
(2019 Admns. Only)
CORE COURSE IN MICROBIOLOGY
5B07MCB : Microbial Biotechnology

Time : 3 Hours

Max. Marks : 40

PART – A

Answer **all** the questions. **Each** question carries **1** mark : **(6×1=6)**

1. Baffles.
2. What is bouquet of wine ?
3. Continuous culture.
4. Antifoam agents.
5. Phenyl acetic acid in Pencillin G production.
6. Auxotrophs.

PART – B

Answer **any 6** questions. **Each** question carries **2** marks : **(6×2=12)**

7. What are secondary metabolites ? Give an example.
8. What is homolactic fermentation ?
9. What is beet molasses ?
10. What are the objectives of using impellers in a bio fermenter ?
11. What is the use of biosensor ?

P.T.O.

12. *Propionibacteriumshermani.*

13. Difference between continuous and fed-batch fermentation.

14. What do you mean by leavening of bread ?

PART – C

Answer **any 4** questions. **Each** question carries **3** marks : **(4×3=12)**

15. Briefly discuss the components of fermentation process.

16. Illustrate the industrial production of vitamin B12.

17. What are major methods used in strain improvement ? Discuss with example.

18. Briefly describe the production of alpha amylases.

19. Examine the steps involved in the industrial production of citric acid.

20. What is enzyme immobilisation of enzymes ? Narrate its advantages.

PART – D

Answer **any 2** questions. **Each** question carries **5** marks : **(2×5=10)**

21. Discuss about the basic design of a fermenter. Give a brief functional account of each of parts.

22. Investigate the major steps involved in wine productions.

23. Elaborate different types of recovery process of industrial production.

24. What is bio pesticides ? Briefly discuss on its advantages and disadvantages.

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