



K21U 1841

Reg. No. :

Name :

**III Semester B.Sc. Degree CBCSS (OBE) Reg./Sup./Imp.
Examination, November 2021
(2019-2020 Admission)
Core Course in Microbiology
3B03 MCB - Microbial Physiology and Metabolism**

Time : 3 Hours

Max. Marks : 40

PART – A

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

1. Chemolithotrophs.
2. Acidophiles.
3. What are saprophytes ?
4. Hydrogenase.
5. Acetogens.
6. ED Pathway.

PART – B

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

7. Comment on the role of temperature on microbial growth.
8. Synchronous growth.
9. What is CO₂ fixation ? Name any two methods of CO₂ fixation.
10. Comment on Thiobacillus ferrooxidans.
11. What are cytochromes ?
12. What is β-oxidation ?
13. Comment on transamination.
14. Coenzyme Q.

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PART – C

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

15. Describe different modes of reproduction in bacteria.
16. Briefly describe Calvin cycle.
17. Comment on Sulfur bacteria.
18. Describe the process of nitrification.
19. Glycolysis.
20. Pentose phosphate pathway.

PART – D

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

21. Write an essay on photosynthesis in bacteria.
 22. Explain briefly the nutritional types of bacteria.
 23. Write an essay on growth curve of bacteria.
 24. Explain the process of Methanogenesis.
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