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K19U 2482

Reg. No. : .....

Name : .....

III Semester B.Sc.Degree (CBCSS- Reg./Sup./Imp.)

Examination, November-2019

(2014 Admn. Onwards)

CORE COURSE IN MICROBIOLOGY

3B 03 MCB MICROBIAL PHYSIOLOGY

Time : 3 Hours Max. Marks : 40

Instruction: Draw diagrams wherever necessary.

SECTION - A

Answer **All** questions. Each question carries **1** mark. **(4×1=4)**

1. A mutant bacterial strain requiring specific nutrient in the media for growth is called_____.
2. The mod of reproduction in bacteria is_____.
3. The light absorbing pigment present in halophiles are_____.
4. The microorganisms that utilize energy present in chemical compounds and carbon in the form of CO_2 are called_____.

SECTION - B

Answer any **Seven** questions.Each question carries **2** marks **(7×2=14)**

5. Microaerophiles.
6. Fastidious microorganism.
7. Generation time.
8. Nephelometry.
9. Phycobilisomes.

P.T.O.

10. Anoxygenic photosynthesis.
11. Leghaemoglobin.
12. Anaerobic respiration.
13. Nif genes.
14. Heterocyst.

SECTION - C

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

15. Nutritional classification of microorganisms.
16. Continuous culture systems.
17. Photosynthetic pigments in microorganisms.
18. Methanogenesis.
19. Free living nitrogen fixing microorganisms.
20. Microbial transformation of hydrocarbons.

SECTION - D

Answer any **Two** Questions. Each question carries **5** marks (2×5=10)

21. Discuss the various nutritional requirements of microorganisms.
22. Write a note on bacterial reproduction. Discuss the methods used for measurement of microbial growth.
23. Discuss the electron flow occurring in microorganisms during cyclic and non - cyclic photophosphorylation
24. Write a note on symbiotic nitrogen fixation.
