

D 91067

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Name

Reg. No.

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2015

(UG—CCSS)

Core Course—Microbiology

MB 5B 08—MICROBIAL PHYSIOLOGY

Time : Three Hours

Maximum : 30 Weightage

Section A

Answer all twelve questions.

Each question carries ¼ weightage.

1. Organisms that obtain their energy by oxidizing inorganic chemical sources are called _____
2. An example for **micronutrients** of bacteria.
3. Give one example for **anoxygenic** photosynthetic bacteria.
4. **Heterotrophs** use _____ carbon source.
5. An example for **cytopathic** virus is _____
6. Alkaline **pyrogallol** is used for cultivation of _____
7. A con **nuous** cell line used for viral cultivation is _____
8. **Sporulatin** in bacteria occurs in _____ phase.
9. The molecules move from higher to lower concentration as a result of random thermal agitation is called _____
10. Give an example for _____ **barophilic** bacteria.
11. **Phosp ioenolpyruvate** sugar **phosphotransferase** system is an example for _____
12. An ex: **mple** for photosynthetic pigment present in bacteria is _____.

(12 x ¼ = 3 weightage)

Section B

Answer all nine questions in one or two sentences.

Each question carries 4 weightage.

- | | |
|---------------------------------|---------------------------------|
| 13. Bacte iophage. _____ | 14. Halophiles. |
| 15. Thermodurries. | 16. Diauxic growth. |
| 17. Microaerophiles. | 18. Bacteriochlorophyll. |
| 19. Facilitated Diffusion. | 20. ATP. |
| 21. Dark reaction. | |

(9 x 1 = 9 weightage)

Turn over

Section C

*Answer briefly any **five** questions.*

Each question carries 2 weightage.

22. Chemostat and Turbidostat.
23. Anaerobic culture methods.
24. Plaque assay.
25. Measurement of bacterial growth.
26. Types of nutrient uptake in bacteria.
27. Viral cultivation methods.
28. Cyclic photophosphorylation.

(5 x 2 = 10 weightage) ^{4.}

Section D

*Answer any **two** questions in detail.*

Each question carries 4.weightage.

29. Describe the nutritional types and groups of micro-organism.
30. Give an account on the factors influencing microbial growth.
31. Explain the mechanism of bacterial photosynthesis.

(2 x 4 = 8 weightage)