

**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  $\frac{1}{4}$  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 continuous cell line used for viral cultivation is \_\_\_\_\_
  8. Sporulation 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. Phosphoenolpyruvate sugar phosphotransferase system is an example for \_\_\_\_\_
  12. An example for photosynthetic pigment present in bacteria is \_\_\_\_\_
- (12 x  $\frac{1}{4}$  = 3 weightage)

**Section B**

*Answer all nine questions in one or two sentences.*

*Each question carries  $\frac{1}{4}$  weightage.*

- |                            |                          |
|----------------------------|--------------------------|
| 13. Bacteriophage.         | 14. Halophiles.          |
| 15. Thermoturkies.         | 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)

### 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)