

D 30718

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Name.....

Reg. No.....

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, OCTOBER 2012

(CCSS)

Microbiology

MB 5B 08—MICROBIAL PHYSIOLOGY

Time : Three Hours

Maximum : 30 Weightage

Section A

Answer all the twelve questions.

1. is the non-nutritive solidifying agent in solid culture medium.
2. **Organisms that grow best within a temperature range of approximately 25-40°C are called**
3. **The process by which a single cell divides after developing a transverse septum is called _____.**
4. **Organisms that grow under conditions of high hydrostatic pressure are called**
5. **Any substance in a fluid that tend to resist the change in pH when acid or alkali is added is called**
6. **The cell or aggregate of cells which gives rise to a single colony in the plate count technique is called**
7. **Give two examples for anaerobic bacteria.**
8. **Organisms which obtain energy from light and use organic compounds as electron source are called**
9. **The shrinkage of cell contents as a result of the withdrawal of water by osmosis is called _____**
10. **phase is the period of culture growth, when cells divide steadily at a constant rate.**
11. **Name two toxic derivatives of oxygen.**
12. **Light generated breakdown of water is called**

(12 x 14 = 3 weightage)

Section B

Answer all the nine questions in one or two sentences.

- 13.. **Generation time.**
14. **Microelements.**
15. **Thermotolerant.**
16. **Sulphur bacteria.**
17. **Plaque.**

Turn over

18. ATP.
19. Fastidious organisms.
20. Anaerobic respiration.
21. Osmosis.

(9 x 1 = 9 weightage)

Section C

Answer briefly any five questions.

22. Synchronous culture.
23. Bacteriophage cultivation.
24. Calvin cycle.
25. Anaerobic culture methods.
26. Facilitated diffusion.
27. Cardinal temperatures.
28. Turbidostat.

(5 x 2 = 10 weightage)

Section D

Answer any two questions in detail.

29. Discuss the growth curve in a closed system.
30. Write an account on the nutritional types of micro-organisms.
31. Explain the viral cultivation methods.

(2 x 4 = 8 weightage)