

D 30718

(Pages : 2)

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 tends 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 = 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)