



MB 1.3

I Semester M.Sc. Microbiology Examination, May 2014
BACTERIAL GROWTH AND PHYSIOLOGY

Time: 3 Hours

Max. Marks : 80

Instruction : Answer *all* the Sections.

SECTION – A

Answer **any four** questions from the following.

(4×5=20)

1. What are Chemoorganotrophs ? Give examples.
2. What are aerotolerant anaerobes ?
3. Lag phase.
4. Turbidostat.
5. Dry weight measurement.
6. Autotrophs.

SECTION – B

Answer **any three** questions from the following.

(3×10=30)

7. Describe autotrophic and heterotrophic nutrition of bacteria.
8. Explain the different types of bacterial culture media.
9. Write short notes on the following.
 - a) Applications of archaebacteria
 - b) Bacterial growth curve.
10. Write short notes on the following.
 - a) Effect of pH on bacterial growth
 - b) Fastidious bacteria.
11. Write short notes on the following.
 - a) Generation time
 - b) Symbiotic bacteria.

P.T.O.



SECTION - C

(2×15=30)

Answer **any two** questions from the following.

12. What are the different chemical factors that influence bacterial growth ?

13. Bacterial hydrolysis of cellulose and hemicellulose.

14. Write short notes on the following.

- a) Measurement of bacterial growth
- b) Defined medium
- c) Trace elements.

15. Write short notes on the following.

- a) Biological factors affecting bacterial growth
- b) Oxygen requirements of bacteria
- c) Agar-agar.