

APRIL/MAY 2019

**BMB11 — FUNDAMENTALS OF
MICROBIOLOGY**

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is Abiogenesis?
2. Define Pasteurization.
3. Define Magnification power.
4. What is staining?
5. What is Microbial evolution?
6. Define Microbial diversity.
7. Define Capsule.
8. Comment on Poly β -hydroxybutyrate (PHB) granule.
9. Define Disinfection.
10. Comment on HEPA filter.



SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Comment on origin of microbial life.

Or

- (b) Write a note on spontaneous generation theory.

12. (a) Differentiate between Bright field and dark field microscope.

Or

- (b) Describe the principle, mode of operation and applications of phase contrast microscope.

13. (a) Give an account on binomial nomenclature of microbes.

Or

- (b) Write a note on eight kingdom concept (Cavalier Smith).

14. (a) Differentiate between the cell wall of Gram positive and Gram negative bacteria.

Or

- (b) Define Endospore. Explain about the sporulation process in bacteria.

15. (a) Give an account on antimicrobial chemotherapy.

Or

- (b) Write a note on radiation used for sterilization.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Write about the contributions of Robert Koch, Louis Pasteur, Stanley Iwanowsky and Winogradsky.
17. Write a detailed note on types of differential staining.
18. Write a detailed note on Endosymbiotic theory.
19. Define Flagella. Write a detailed note on types of flagella with a neat diagram.
20. Define sterilization. Write about dry heat, moist heat and filtration with a neat diagram.

