

NOVEMBER/DECEMBER 2018

BABC32 — MICROBIOLOGY – I

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is spontaneous generation theory? Who proposed it?
2. Mention the contribution of Joseph Lister to microbiology.
3. What are Archaea?
4. Write shortly on the species concept.
5. What is differential staining?
6. What is a pure culture?
7. Define Quality control.
8. What do you understand by the term chemotherapy?

9. Define log phase of the growth curve.
10. Write any two significance of batch culture.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Explain the scope of Microbiology.
- Or
- (b) Discuss about the principle that governs fluorescence microscopy.
12. (a) Briefly discuss about the binomial nomenclature of microbes.

Or

- (b) What are the structure and functions of cell wall?
13. (a) Give the details of acid fast staining.
- Or
- (b) Describe the requirements for anaerobic culture technique.
14. (a) How will you test for sensitivity to antimicrobial agents?

Or

- (b) Write short notes on anti-microbial resistance.

15. (a) Outline the phases of growth curve of a bacteria.

Or

- (b) Discuss about the structural characteristics of algae.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Highlight the significance of microscopes in Microbiology with reference to electron microscopes.
17. Write a detailed note on differential and special staining techniques.
18. Draw, label and explain the structure and functions of cell organelles of an eukaryotic cell.
19. Write elaborately on microbial identification based on biochemical properties.
20. Elaborate on the methodologies to measure the microbial growth.