

(6 pages)

S.No. 2260

17UMB01

(For the candidates admitted from 2017 – 2018 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

First Semester

Microbiology

FUNDAMENTALS OF MICROBIOLOGY

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

1. First person to observe the microorganisms _____
(a) Koch (b) Flemming
(c) Louis Pasteur (d) Leevenhock
2. Paul Elrich developed the modem concept of _____
(a) Allopathy (b) Chemotherapy
(c) Naturopathy (d) Medicine

3. The Compound microscope posses _____ ocular lens.
(a) One (b) Two
(c) Three (d) Four
4. The ability of the microscope to visualise the object is _____
(a) Reflection (b) Amplification
(c) Magnitude (d) Resolving power
5. Gram's iodine solution is referred as _____
(a) Decolourizer
(b) Counter stain
(c) Primary stain
(d) Mordant
6. Teichoic acid is present in _____ Bacterium.
(a) Negative
(b) Gram negative
(c) Gram Positive
(d) Positive

7. The sterilization of Milk is referred as —————

- (a) Sterilization
- (b) Pasteurization
- (c) Boiling
- (d) Refrigeration

8. The temperature maintained in Autoclave is

- (a) 150° (b) 121°C
- (c) 115°C (d) 105°C

9. Nutrient Broth is ————— Growth medium.

- (a) Soild (b) Semi soild
- (c) Liquid (d) Dense

10. The Protein source in the medium is

- (a) Peptone (b) Peptide
- (c) Pulses (d) Seeds

PART B — (5 × 2 = 10 marks)

Answer ALL questions.

- 11. Write the Koch's Postulates.
- 12. Define Dark field Microscope.
- 13. What is Peptidoglycan Layer?
- 14. Define Sterilization.
- 15. What is Agar?

PART C — (5 × 5 = 25 marks)

Answer ALL questions.

- 16. (a) Explain Biogenesis theory.

Or

- (b) Explain the contributions of Robert Koch.

17. (a) Explain SEM.

Or

(b) Explain the principle of Compound Microscope.

18. (a) Write a note on simple staining method.

Or

(b) Explain Spore staining.

19. (a) Explain the Radiation method of sterilization.

Or

(b) Explain the Hot air oven.

20. (a) Explain Anaerobic culture technique.

Or

(b) Explain Types of media.

PART D — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

21. Explain the contributions of Louis Pasteur and Edward Jenner.

22. Explain Phase contrast Microscope in detail.

23. Explain the structure of Bacterial cell.

24. Explain chemical sterilization methods in detail.

25. Explain pure culture techniques in detail.
