(For the candidates admitted from 2012-2013 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

First Semester

Microbiology

FUNDAMENTALS OF MICROBIOLOGY

Time: Three hours

Maximum: 75 marks

PART A — $(10 \times 2 = 20 \text{ marks})$

Answer ALL the questions.

- 1. Biogenesis.
- 2. Contribution and Fleming.
- 3. Resolving power.
- 4. Simple Microscope.
- 5. Staining.
- 6. Safranin.
- 7. Autoclaving.

- 8. Halogens.
- 9. Acyclovir.
- 10. Bacitracin.

(a)

11.

PART B — $(5 \times 5 = 25 \text{ marks})$ Answer ALL the questions.

Or

Discuss the Koch postulates.

- (b) Give an account on spontaneous generation.
- 12. (a) Write short notes on dark field microscope.

Or

- (b) Describe the principle, working and use of a compound microscope.
- 13. (a) Give an account on capsular staining.

Or

- (b) Discuss the granular staining.
- 14. (a) Write a short note on Hot air oven.

Or

(b) Give an account on filtration.

15. (a) Write a short note on ampicillin antibiotics and its mode of action.

Or

(b) Discuss the antibacterial agents.

PART C — $(3 \times 10 = 30 \text{ marks})$ Answer any THREE out of Five.

- 16. Describe the contribution of Leeuwenhoek.
- 17. Explain in detail the SEM.
- 18. Write a detailed account on differential staining.
- 19. Give an account on pasteurization.
- 20. Give a descriptive account of antimicrobial agents.

3.