

Q.P. Code : 11135

**First Semester B.Sc. Degree Examination,
November/December 2019**

(CBCS – Semester Scheme – Freshers & Repeaters)

Microbiology

Paper I - BASIC MICROBIOLOGY

Time : 3 Hours]

[Max. Marks : 70

Instructions to Candidates :

- 1) *Answer all the Sections.*
- 2) *Draw diagrams wherever necessary.*

SECTION - A

- I. Answer the following : **(5 × 2 = 10)**
1. Name two dyes used in fluorescence microscopy.
 2. Enlist Koch's postulates.
 3. What is meant by narrow spectrum antibiotic? Give example.
 4. What is incineration?
 5. State Beer-Lambert's Law.

SECTION - B

- II. Answer any **FOUR** of the following : **(4 × 5 = 20)**
6. Describe the working principle of Dark Field Microscope.
 7. Give a brief account on the scope of Microbiology.
 8. Describe the principle and procedure of Endospore Staining.
 9. Explain any two filtration methods as physical means of sterilization.
 10. Explain the technique of thin layer chromatography.

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SECTION - C

(3 × 10 = 30)

- III. Answer any **THREE** of the following :
11. What is differential staining? Explain Acid Fast staining method in detail.
 12. Describe the construction, working principle and applications of SEM.
 13. Discuss any one cell wall inhibiting and any one protein synthesis inhibiting antibiotic.
 14. Enlist chemical agents used for disinfection. Give mode of action of any three of them.
 15. Discuss the contributions of Edward Jenner and Louis Pasteur.

SECTION - D

(10 × 1 = 10)

- IV. Answer in **1** word or a sentence :
16. Who used phenolic solution as disinfectant during surgery?
 17. What color should a gram-positive organism appear after Gram Staining?
 18. What is the temperature and time employed to sterilize the articles in hot air oven?
 19. Write the formula for resolving power.
 20. Which microscope uses ultraviolet light source?
 21. Who finally disproved the theory of spontaneous generation?
 22. What is therapeutic index?
 23. Name one antiviral antibiotic.
 24. Phycology is the study of _____
 25. What is nalidixic acid used for?
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