

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2017
(First Semester)

Branch- MICROBIOLOGY

PRINCIPLES OF MICROBIOLOGICAL METHODS

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 2 = 20)'

- 1 Resolving power.
- 2 SEM.
- 3 Wet mount.
- 4 Staining.
- 5 Filtration.
- 6 Pasteurization.
- 7 Halogens.
- 8 Aldehydes.
- 9 Streak plate.
- 10 PDA.

SECTION - B (25 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 5 = 25)

- 11 a Briefly describe the principle and applications of phase contrast microscope.
OR
b What is electron gun? Explain.
- 12 a Give a concise account of Gram staining.
OR
b Comment on acid fast staining.
- 13 a Write a brief note on Tyndallisation.
OR
b Define UV-rays and X-rays.
- 14 a Give a brief account on heavy metals.
OR
b What are oxidizing agents? Explain.
- 15 a What are the types of media? Explain.
OR
b Briefly explain the anaerobic microbes cultivation techniques.

SECTION - C (30 Marks)

Answer any THREE Questions

ALL Questions Carry EQUAL Marks (3 x 10 = 30)

- 16 Enumerate the differences between SEM and TEM.
- 17 Describe the cytoplasmic organelles staining methods.
- 18 Describe the principle and applications of pasteurization.
- 19 What are the chemical agents present in soaps and detergents? Explain.
- 20 Write about the preservation of microbial culture.