

KARNATAKA STATE OPEN UNIVERSITY
M.Sc. Microbiology - I Semester
Examination May 2015

Course MB 1.4: Microbial Techniques

Time: 3 Hours

Max. Marks: 80

Instruction: Answer all the sections.

Section A

Answer any **FOUR** questions from the following:

4 × 5 = 20

1. Autoclave.
2. Sunlight as a sterilization method.
3. HEPA filters.
4. Viable Plate Count.
5. Lyophilization (Freeze-Drying).
6. Confocal microscopy.

Section B

Answer any **THREE** questions from the following:

3 × 10 = 30

7. Give a brief account of general layout of a microbiology laboratory.
8. Write short notes on the following:
 - a) Flagellar Staining.
 - b) Chemical sterilents.
9. Explain the procedure and principle of Gram staining.
10. Write short notes on the following:
 - a) Serial Dilution.
 - b) Cryopreservation.
11. Define pure culture. What are methods of obtaining pure cultures?

Section C

Answer any **TWO** questions from the following

2 × 15 = 30

12. Give a detailed account of confocal microscopy.
13. Explain different methods of measurement of growth of microorganisms.
14. Write short notes on the following:
 - a) Hot air oven.
 - b) Thermophiles.
 - c) Differential medium.
15. Write short notes on the following:
 - a) Haemocytometer.
 - b) Types of pasteurization.
 - c) Radiation sterilization.

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