

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Explain in detail the historical development in the field on microbiology.
- Q.24 What are strains? Explain various methods of bacterial staining.
- Q.25 Write a detailed note on classification of yeast.

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### Sem. 1st/ Food Technology Subject : Basic Microbiology

Time : 3 Hrs.

M.M. : 60

### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 Which bacteria are spherical in shape?
- a) Vibriam                      b) Coccus  
c) Bacillus                     d) All the above
- Q.2 Who is known as father of modern microbiology?
- a) Robert Koch                b) Joseph Lister  
c) Louis Pasteur                d) Leeuwenhoek
- Q.3 What is the full form of TDT?
- a) Thermal Death Time  
b) Thermal Death Temperature  
c) Temperature Death Time  
d) None of them

- Q.4 Temperature time combination for sterilization
- a) 121°C for 15 minutes
  - b) 72°C for 15 seconds
  - c) 121°C for 15 seconds
  - d) 100°C for 30 seconds

- Q.5 What is true about bacteria?
- a) Unicellular
  - b) Heterotrophic
  - c) Autotrophic
  - d) All the above

- Q.6 Alexander Fleming discovered
- a) Bacteria
  - b) Penicillin
  - c) Fungi
  - d) Virus

### SECTION-B

**Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 Bacteria are microscopic organisms. (True/False)
- Q.8 \_\_\_\_\_ cell have cell wall.
- Q.9 Maximum growth of bacteria occurs in \_\_\_\_\_ phase.
- Q.10 Radiations do not require medium for propagation. (True/False)

- Q.11 The complete destruction of microorganisms from any surface is called \_\_\_\_\_.

- Q.12 Yeast is a unicellular organism. (True / False)

### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Write a note on growth curve of bacteria.
- Q.14 Explain various modes of reproduction in bacteria.
- Q.15 What is pasteurization? Explain various type of pasteurization.
- Q.16 Classify the bacteria on the basis of their shape.
- Q.17 What are macronutrients? Give examples.
- Q.18 Define PH? Explain various types PH.
- Q.19 Define staining. Differentiate between dyes and strains.
- Q.20 Describe the isolation techniques of pure culture.
- Q.21 Write the classification of bacteria on the basis of oxygen requirement.
- Q.22 Write a short note on prokaryotic cell.