

- Q.24 What is the difference between food infection and food intoxication?
- Q.25 Explain TDT with its curve.
- Q.26 Why antimicrobial agents are added in food?
- Q.27 Define food fermentation with its types.
- Q.28 Differentiate between aerobic and anaerobic microorganisms with examples.
- Q.29 Explain the microbiology of poultry.
- Q.30 What is MBRT? Give its significance.
- Q.31 Describe various methods of microbial control in foods.
- Q.32 How eggs are spoiled? Explain.
- Q.33 Explain the microbiology of bread.
- Q.34 What are the factors responsible for food borne illness?
- Q.35 Describe D, F and Z value.

#### SECTION-D

**Note: Long answer questions. Attempt any two questions out of three Questions. (2x10=20)**

- Q.36 Describe the historical development in food microbiology in detail.
- Q.37 Explain the microbiology of fruits and vegetable products in detail.
- Q.38 Write a short note on anti microbial agents and their mechanism of action.

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**3rd Sem.**

**Branch : Food Technology**  
**Sub: Food Microbiology**

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

**Note: Multiple type Questions. All Questions are compulsory. (10x1=10)**

- Q.1 What is the primary focus of food microbiology?
- Study of cooking techniques
  - Investigation of good flavors
  - Examination of microorganism in food
  - Analysis of food textures
- Q.2 The bacterium *Staphylococcus aureus* is which type of bacteria?
- Mesophilic
  - Mesophilic and psychrophilic
  - Psychrophilic
  - Thermophilic
- Q.3 What is the primary purpose of adding chemical preservatives to food?
- Improving texture
  - Enhancing flavour
  - Increasing nutritional value
  - Inhibiting microbial growth

- Q.4 Laminar flow hood works on the principle of  
 a) High Efficiency particulate air filter  
 b) High Energy particulate air filter  
 c) High Energy pressure air filter  
 d) None of the above
- Q.5 Putrefaction is related to hydrolysis of \_\_\_\_\_.  
 a) Starch                                      b) Protein  
 c) Lipids                                        d) All of these
- Q.6 What is the optimum temperature range for thermophiles?  
 a) 40-45°C                                      b) 20-30°C  
 c) 60-90°C                                      d) 55-75°C
- Q.7 Growth of bacteria or microorganisms refer to  
 a) Changes in total population  
 b) An increase in number of cells  
 c) An increase in size of individual organism  
 d) An increase in mass of individual organism
- Q.8 Which microorganism is commonly used in the fermentation of sauerkraut?  
 a) Escherichia coli  
 b) Clostridium botulinum  
 c) Saccharomyces cerevisiae  
 d) Lactobacillus bulgaricus
- Q.9 In the context of food microbiology, what does HACCP stands for?  
 a) Hazard Analysis and Critical Control Points  
 b) High Altitude Cooking and Cooling Process  
 c) Health and Certified Culinary Practices  
 d) Highly Advanced Cold Chain Preservation

- Q.10 Two types of fermentation are carried out for the production of  
 a) Pickle                                              b) Yoghurt  
 c) Vinegar                                            d) Cheese

### SECTION-B

**Note: Objective type questions. All questions are compulsory. (10x1=10)**

- Q.11 Define growth rate.  
 Q.12 Define Freezing.  
 Q.13 Define food poisoning.  
 Q.14 Give the temp-time combination for pasteurization.  
 Q.15 Define food spoilage.  
 Q.16 Enlist four phases of growth curve.  
 Q.17 Enlist various chemical antimicrobial agents.  
 Q.18 Define Thermophiles.  
 Q.19 Name the microorganism responsible for bread spoilage.  
 Q.20 Define lipolysis.

### SECTION-C

**Note: Short answer type Questions. Attempt any twelve questions out of fifteen Questions. (12x5=60)**

- Q.21 Define food microbiology with its objectives.  
 Q.22 Enlist any five beneficial bacteria in food microbiology.  
 Q.23 What are the sources of contamination in butter?