

- Q.24 Describe D, F and Z value?  
 Q.25 Enlist any five food spoilage causing microbes?  
 Q.26 Explain briefly "food poisoning"?  
 Q.27 Define sterilization? How it differs from pasteurization?  
 Q.28 Explain the microbiology of milk powder?  
 Q.29 Explain the significance of food microbiology?  
 Q.30 Explain the microbiology of poultry?  
 Q.31 Describe various physical agents as antimicrobial agents?  
 Q.32 What are the factors affecting growth of yeast?  
 Q.33 Differentiate between food infection and food intoxication?  
 Q.34 Write a short note on micro-toxins?  
 Q.35 Write a note on spoilage of fresh fish?

#### SECTION-D

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

- Q.36 Explain in brief:  
 i) Microbiology of Meat  
 ii) Microbiology of Fish  
 Q.37 Write short note on Microbiology of Cereals and Cereal products?  
 Q.38 Write short notes on anti microbiology agent and mechanism of action?

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### 3rd Sem / Food Technology Subject:- Food Microbiology

Time : 3Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Watery soft rot is found mostly in  
 a) Fruits b) Vegetables  
 c) Cereals d) All of the above  
 Q.2 The time-temperature combination for HTST pasteurization of 71.1C for 15 sec is selected on the basis of \_\_\_\_\_.  
 a) E.coli b) Coxiella Bvurnetii  
 c) C.botulinum d) B.subtilis  
 Q.3 Black mold rot is caused by  
 a) Flavus  
 b) Aspergillus niger  
 c) Trichoderma  
 d) Trichothecium roseum  
 Q.4 Under what conditions food poisoning bacteria may grow and produce toxins in vegetables?  
 a) When thawed vegetables are held at refrigerated temperature for any considerable period

- b) When thawed vegetables are held at room temperature for any considerable period
  - c) When thawed vegetables are held below refrigerated temperature for any considerable period
  - d) None of the above
- Q.5 Which factor is/are responsible for food borne illness?
- a) inadequate cooling during storage
  - b) food from unsafe sources
  - c) poor hygiene
  - d) all of the above
- Q.6 Moisture content of cereal grain that prevents from spoilage is-
- a)  $\leq 12\%$                       b)  $\geq 12\%$
  - c)  $\leq 15\%$                       d)  $\leq 17\%$
- Q.7 Saprophytic bacteria cause
- a) sliminess or souring in piled, wet and heating vegetables
  - b) brown rot in vegetables
  - c) black rot in fruits
  - d) bacterial soft rot
- Q.8 Spoilage in food because of microbial activity can be prevented or delayed by
- a) prohibiting the entry of micro organism in food
  - b) physical removal of micro organism
  - c) hindering the activity of micro organism
  - d) all of the above

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- Q.9 Clostridium botulinum mainly result in spoilage of \_\_\_\_\_ foods
- a) High acid Food              b) Acidic Food
  - c) Medium acid Food        d) Low acid Food
- Q.10 Any change that renders food unfit for human consumption is called
- a) Processing                      b) Spoilage
  - c) Deterioration                d) preservation

### SECTION-B

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

- Q.11 Define microbiology?
- Q.12 Define TDT?
- Q.13 Define mesophiles?
- Q.14 Define food poisoning?
- Q.15 Define Anti-microbial agent?
- Q.16 What is spoilage?
- Q.17 Write full form of MBRT?
- Q.18 Name 2 food spoilage bacteria?
- Q.19 Define D value?
- Q.20 Name any two food borne disease?

### SECTION-C

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

- Q.21 Define micro-organisms? How they are beneficial to us?
- Q.22 Explain the microbiology of jam and jelly?
- Q.23 Explain the microbiology of bread?

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