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Roll No....

# M.Sc. IV Semester Examination, 2021

## **MICROBIOLOGY**

## Paper III

(Food and Dairy Microbiology)

Time: 3 Hours

[Maximum Marks: 80

All questions are compulsory. Question Paper Note: comprises of 3 sections. Section A is objective type/multiple choice questions with no internal choice. Section B is short answer type with internal choice. Section C is long answer type with internal choice.

# SECTION 'A' (Objective Type Questions)

Choose the correct answer:

 $1 \times 8 = 8$ 

- 1. Which organism occurs in poulty:
  - (a) Pseudomonas
- (b) Staphylococi
- (c) Micrococci
- (d) Enterococea
- **2.** Which spoilage occurs in Fresh meat?
  - (a) Souring

- (b) Greening
- (c) Putrefaction
- (d) Moldy

- 3. The anaerobic thermophillic spoilage in canned food in caused due to:
  - (a) Bacillus stearothermophilus
  - (b) Thermosaccharolycum
  - (c) Bacillus thermoacidurans
  - (d) Clostridium sporegenes
- **4.** In which microorganism slimy layer is formed:
  - (a) Acid producers
- (b) Gas producers
- (c) Rosy fermentation (d) Proteolytic
- **5.** Common symptoms of food poisoning:
  - (a) Nausea and Vomiting
  - (b) Constipation
  - (c) Joint pain
- (d) Headache
- **6.** Norovirus is most common cause of food poisoning.
  - (a) True

- (b) False
- 7. Food commonly associated with food spoilage:
  - (a) Fruits

(b) Meat

(c) Eggs

(d) All the above

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- **8.** Food poisoning can be prevented by :
  - (a) leaving food in hot
  - (b) String food at temperatures above 40°C
  - (c) Washing hands thoroughly
  - (d) Rinsing meat before cooking

SECTION 'B'

 $6 \times 4 = 24$ 

(Short Answer Type Questions)

**Note:** Answer the following questions in 250 words.

#### Unit I

**1.** Write notes on chemical preservatives.

Or

Write notes on microbial flora in female and eggs and fish.

#### **Unit II**

2. Write short notes on role of microbes in Beer.

Or

Write notes on D, Z and F values.

#### **Unit III**

**3.** Write notes on beneficial role of bacteria in food industry.

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Or

Write short notes on cross contamination.

#### **Unit IV**

**4.** Write short note on spoilage of canned foods.

Or

Write short note on spoilage of Milk and milk products.

SECTION'C'

 $12 \times 4 = 48$ 

## (Long Answer Type Questions)

**Note:** Answer the following questions in 500 words.

#### Unit I

1. Describe food as substrate for nuro-organism.

Or

Write in detail the food additives, its advantages and disadvantages.

### **Unit II**

**2.** Describe the detection spoilage and characterization of spoilages in detail.

Or

Describe vinegar fermentation and role of microbes in the process.

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## **Unit III**

**3.** Describe bacterial intoxication.

Or

Describe sources and transmission of bacteria in foods.

# **Unit IV**

**4.** Describe spoilage of canned foods.

Or

Explain cheese production in detail.



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