

2021

Microbiology

[P.G.]

(M.Sc. Third Semester End Examinations-2022)

PAPER-303

[FUNDAMENTALS AND APPLICATION OF FOOD  
MICROBIOLOGY]

*Full Marks: 40*

*Time: 02 Hrs*

*The figures in the right hand margin indicate marks*

*Candidates are required to give their answers in their own words as  
far as practicable*

*Illustrate the answers wherever necessary*

**Group-A (MCB-303.1)**

**Marks 20**

1. Answer any two question from the following: **2x2= 4**
- a. Name four food poisoning bacteria.  $\frac{1}{2} \times 4$
- b. Name of four water contaminated disease and its causative agent.  $\frac{1}{2} \times 4$
- c. What are the changes occur due to bacterial activities in foods? 2
- d. What are biological preservatives? Give example. 1+1

(2)

2. Answer any two question from the following: 4x2= 8
- a. Explain in short about extrinsic factors for food contamination. 4
  - b. What are perishable and stable food? Give examples. 3+1
  - c. Write down the role of HACCP in food safety. 4
  - d. Describe the types of food preservatives. Write down the significance of food freezing. 3+1
3. Answer any one question from the following: 8x1= 8
- a. Explain the importance of hydrogen ion in food microbiology 8
  - b. What is water activity? Describe the importance of water activity. 4+4

**Group-B (MCB-303.2)**

**Marks 20**

1. Answer any two question from the following: 2x2= 4
- a. What are the basic criteria for selection of prebiotic substances? 2
  - b. What is Poi? Write down the name of microorganisms associated with Poi fermentation? 1+1
  - c. Write down the characters of good compost? 2
  - d. What is "SCOBY"? 2

(3)

2. Answer any two question from the following: 4x2= 8
- a. Write down a short note on Sufu production. 4
  - b. Write down the mode of action of bacteriocin? 4
  - c. Write down the advantages and limitation of genetically modified foods. 2+2
  - d. Describe the QUORN Process of mycoprotein production. 4
3. Answer any one question from the following: 8x1= 8
- a. Describe the acetic acid production through Orleans method with schematic diagram? Write down the applications of acetic acid. 4+4
  - b. Describe the Soy Sauce manufacturing process with schematic diagram. 6+2
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