



PG (CBCS)
M.SC Semester- II Examination, 2023
FOOD SCIENCE & NUTRITION
PAPER: FSN 202
(FOOD MICROBIOLOGY AND FOOD PRESERVATION)

Full Marks: 40

Time: 2 Hours

The figures in the right-hand margin indicate full marks.
 Candidates are required to give their answers in their own words as far as practicable.

GROUP-A

1. Answer any **FOUR** from the following questions: 2×4=8
- a) What is slime layer?
 - b) Define xerophilic microorganism.
 - c) What is mycelium?
 - d) Define 'virion'.
 - e) What do you mean by 'coliform' bacteria?
 - f) What is UHT?

GROUP-B

2. Answer any **FOUR** from the following questions: 4×4=16
- a) Discuss the structure of outer membrane of Gram-negative bacteria.
 - b) How does the animal virus enter into the animal cell?
 - c) Discuss different types of asexual spores produced by fungi.
 - d) Write notes on pasteurization and blanching. 2+2
 - e) How does irradiation affect the food quality?
 - f) What is Pasteurization? Discuss the steps of Pasteurization of milk.

GROUP-C

3. Answer any **TWO** from the following questions: 2×8=16
- a) Discuss different principles of food preservation.
 Name any two preservatives used in food preservation and state their mode of action in killing bacteria. 5+(1+2)
 - b) Discuss bacterial growth curve.
 What is the generation time of a bacterial population that increases from 104 cells to 107 cells in four hours of growth? 4+4
 - c) Why salt is used as a preserving agent from the ancient time? Write down the different procedures are usually practicing for milk preservation. 3+5
 - d) Mention the major biochemical changes happen in meat after slaughtering of an animal. Write a note on high pressure technology in food preservation. 4+4