

2063

B.E. (Bio-Technology) Seventh Semester
BIO-712: Food Biotechnology

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

- I. Answer the following briefly:-
- What is the structure of rotavirus?
 - What is the relationship between relative humidity and water activity?
 - Classify bacteria based on temperature requirement for its growth.
 - Name the Extrinsic factors which affect the growth of a microorganism in food.
 - What is putrefaction?
 - What is the pH requirement for the growth of microbes?
 - What range of radiation do microwaves cover?
 - What are antioxidants?
 - Which are the organic acids commonly used in food preservation.
 - What is hurdle technology? (10x1)

UNIT - I

- II. a) Discuss the various intrinsic factors that influence the ability of foods to support the growth of microorganisms.
- b) Describe briefly the contributions of the various scientists in the development of microbiology and food microbiology. (2x5)
- III. Give the brief description of following microbial genera associated with food (Do any four)
- Escherichia*
 - Rhizopus*
 - Saccharomyces*
 - Aspergillus*
 - Geotrichum*

(10)
P.T.O.

(2)

- IV. a) Explain various physical methods used in preservation of food.
b) What are the factors that influence the meat spoilage by microflora? How meat spoilage takes place by microorganism? (2x5)

UNIT - II

- V. a) Give general outline of steps required for making yoghurt.
b) What are the sources of microorganisms and advantages of SCP? (2x5)
- VI. Write down about characteristics, pathogenesis and laboratory diagnosis of Salmonellosis. (10)
- VII. a) What are various detection methods are used in Botulinum food poisoning?
b) Explain the seven basic principles of HACCP? (2x5)

x-x-x