

2074

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. I which is compulsory and selecting two questions from each Unit.

x-x-x

I. Answer the following briefly:-

- a) What is asepsis also known as?
- b) What is SCP and its uses?
- c) What is soya sauce made of?
- d) What are the four types of cereals?
- e) What mistake did Needham make in his experiment?
- f) Why do fruits turn brown when exposed to air?
- g) What is the structure of Hepatitis A virus?
- h) What happens to soil without microbes?
- i) What is the major advantage of microwave cooking over conventional cooking?
- j) What is blanching? (10x1)

**UNIT - I**

- II. a) Define water activity. How can microorganisms be grouped on the basis of water activity range? (4)
- b) Explain how certain scientists (Van Helmont, Redi, Spallanzani) tried to prove or disprove spontaneous generation. (6)
- III. a) Write down about spoilage of fruits and vegetables? (5)
- b) Write a note on airborne and soil borne microorganisms (5)
- IV. a) What are the benefits and limitations of modified atmosphere packaging of food products? (5)
- b) Discuss the preservation of food by ionizing and nonionizing radiations. (5)

P.T.O.



**UNIT - II**

- V. a) List out the important steps carried out for miso production. (5)  
b) Explain seven principles of HACCP? (5)
- VI. Write down about characteristics, pathogenesis and laboratory diagnosis of *Shigella*. (10)
- VII. a) Why are ATP bioluminescence tests conducted. (3)  
b) Discuss the pathogenesis of Amebiasis and Giardiasis. (7)

x-x-x