

2124  
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:-

- a) Give some examples of foodborne bacteria that cause infection.
- b) Define hurdle technology.
- c) What is soya sauce made of?
- d) What is the role of fermentation in the enhancement of mineral content in the foods?
- e) What are the characteristics of *Entamoeba histolytica*?
- f) How food is classified on basis of spoilage?
- g) What are the common types of mushroom cultivated in India?
- h) What are the main ingredients in beer?
- i) What are two forms of *Giardia lamblia*?
- j) Why was the barrel method for producing vinegar referred to as Orleans process?

(10x1)

**UNIT - I**

- II. a) Briefly discuss Moisture Content and Water Activity (aw) as an important factor that affect the growth of microbes.  
b) Who is the father of food microbiology? What is his contribution on spontaneous generation? (6,4)
- III. a) Write down about spoilage of eggs and egg products?  
b) Explain how water can be a source of food borne diseases. (6,4)
- IV. a) Explain different methods of food preservation by heat.  
b) What are the various applications of UV light in food preservation? (6,4)

P.T.O.



(2)

**UNIT - II**

- V. a) Write down biological characteristics and mechanism of toxicity of *Shigella* infection?  
b) List out the important steps carried out for miso production. (6,4)
- VI. a) Compare and contrast between Hepatitis B, C and D viruses.  
b) What is the mechanism of action of *Vibrio Cholera*? (6,4)
- VII. a) Explain methods used for surface assessment in food operations.  
b) What is the function of HACCP? (7,3)

x-x-x