

## **Model Question Paper**

### **M.Sc. Semester IV**

#### **End Semester Examination**

#### **Paper EC III : Bioinformatics, Food and Dairy Microbiology**

#### **Short Answer Type Questions**

1. What is a Phylogenetic tree?
2. What is the importance of protein structure prediction?
3. Write the file formats of GenBank and PDB.
4. Write a note on biological database.
5. Discuss about EMBL and DDBJ.
6. What are mycotoxins? Give examples.
7. What is botulism? Describe.
8. Discuss staphylococcal food intoxication.
9. Explain production and application of Baker's yeast.
10. What is sauerkraut? Describe.
11. Describe application of protease and Lipase in dairy industry.
12. Discuss functional annotation of EST clusters.
13. What is pairwise and multiple sequence alignment.
14. Write down the concept of unigene.
15. Write notes on the contaminants present in poultry birds.
16. Discuss the factors influencing the invasion of microbes in meat.
17. Discuss the preservation of fruit and vegetables.
18. What are microwaves?
19. List the different kinds of ionizing radiations.
20. List the groups of antimicrobial preservatives added to foods.

### **Long Answer type Questions**

1. What are the different approaches for construction of phylogenetic tree?
2. Write in detail HACCP.
3. Write a note on genetically modified food.
4. Discuss about Biosensor in food.
5. How do secondary and tertiary structure of RNA is predicted?
6. Define operating system and discuss its various types.
7. Write in detail role of microorganisms in tea and coffee fermentation.
8. Explain foodborne infections and intoxications with examples.
9. What are the application of microbial enzymes in food industry.
10. Discuss the various methods to perform protein structure prediction.