

Reg. No.:



Name:

University of Kerala

Y8178

Second Semester FYUGP Degree Examination, June 2026

Multi-Disciplinary course

BIOTECHNOLOGY

UK2MDCBIT104 - Food safety, preservation and quality management

Academic Level: 100-199

2024 Admission onwards

Time: 1 Hour 30 Minutes(90 Mins.)

Max. Marks: 42

**Part A. 6 Marks.Time:6 Minutes.(Cognitive Level:Remember(RE)/Understand(UN)) Objective Type. 1 Mark
Each.Answer all questions**

Qn No.	Question	CL	CO
1	List any two food items that are commonly adulterated.	RE	2
2	1. Define cross-contamination in food handling.	RE	1
3	Give an example of a biological method of food preservation.	UN	4
4	Give an example for a bio-packaging material used in food packaging.	UN	5
5	Name the causative agent of cholera?	UN	3
6	Explain the concept of food adulteration	UN	2

Part B. 8 Marks.Time:24 Minutes.(Cognitive Level:Understand(UN)/Apply(AP))Short Answer. 2 marks each.Answer all questions

Qn No.	Question	CL	CO
7	Describe the importance of microbiological testing in food safety	UN	1
8	What are mycotoxins, and how do they affect human health?	UN	3
9	How can water activity be controlled to extend the shelf life of food products?	AP	4
10	Describe any two food packaging materials and their advantages	AP	5

Part C. 28 Marks.Time:60 Minutes (Cognitive Level:Apply(AP)/Analyse(AN)/Evaluate(EV)/Create(CR)) Long Answer.7 marks each.Answer all 4 Questions choosing among options * within each question

Qn No.	Question	CL	CO
11	A) Describe the principles and methods of chemical and biological preservation techniques OR B) A. How could a biotechnology company develop a rapid detection method for Shigellosis in food products?	AP	4, 3
12	A) Discuss the symptoms, causes, and preventive measures of major foodborne illnesses like Cholera, Salmonellosis, and Botulism. OR B) A.Analyze the effect of environmental factors (e.g., humidity, temperature) on the growth of foodborne pathogens	AN	3, 4
13	A) <i>B. Evaluate the significance of food labelling in different types of food</i> OR B) Evaluate the advantages of biopackaging over conventional packaging.	EV	5, 3

Qn No.	Question	CL	CO
14	A) A. Propose a community - based food hygiene awareness campaign using biotechnology-based demonstrations. OR B) Design a sustainable food packaging system using bio-packaging materials.	CR	1, 5