Name: Enrolment No:	

UPES

End Semester (Odd) Examination, December 2024.

Course: Food Safety and Laws **Semester: III**
Program: B.Sc. Food Nutrition and Dietetics **Duration: 03 Hours**
Course Code: HSFN2001 **Max. Marks: 100**

Instructions: Read each question carefully and answer.

S.No.	SECTION A Short answer questions MCQs/T&F/Fill in the blanks (20Qx1.5M=30 Marks)	Marks	COs
Q 1	What is meant by high-risk food? Give examples.	1.5	CO1
Q2	Enlist the 4 Cs of food safety.	1.5	CO1
Q3	The full form of GAP is: a) Good Area Practices b) Good Agricultural Protocol c) Good Agricultural Practices d) Good Area Protocol	1.5	CO1
Q4	Statement: The duration of illness is shorter in food intoxication than the food poisoning. a) True b) False	1.5	CO2
Q5	What is GMP?	1.5	CO2
Q6	CODEX was established by a) FAO b) WHO c) Both d) None	1.5	CO5
Q7	The headquarters of ISO is situated in: a) Delhi, India b) Geneva, Switzerland c) New York, USA d) London, UK	1.5	CO3
Q8	Write the full form of BRC.	1.5	CO4
Q9	ISO is an international and non-governmental organization a) True b) False	1.5	CO3
Q10	HACCP has …… principles.	1.5	CO3
Q11	Statement: The company that first used HACCP to supply food in space was Nestle. a) True b) False	1.5	CO3
Q12	Metal detectors can be used to identify …… . contamination in food.	1.5	CO2
Q13	The full form of FSMS is food safety……. system.	1.5	CO4
Q14	How many frameworks are there in the Six Sigma methodology? a) 7 b) 6 c) 5 d) None	1.5	CO5

Q15	An example of food adulterant is: a) Artificial sweetener b) MSG c) Saw Dust d) Sodium benzoate	1.5	CO2
Q16	Which one is the exponential phase? a) Log phase b) Lag phase c) both d) none	1.5	CO2
Q17	Shiga toxins are produced by: a) *Escherichia coli* b) *Staphylococcus aureus* c) *Bacillus cereus* d) *Clostridium botulinum*	1.5	CO2
Q18	The generation time of *Escherichia coli:* a) 20 hours b) 20 mins c) 20 days d) none	1.5	CO2
Q19	Write the full form of the FDA?	1.5	CO5
Q20	Ciguatera and Scombroid are: a) Marine toxins b) Mycotoxins c) Both (a) and (b) d) None	1.5	CO2
	SECTION B (20 Marks) **(4Qx5M=20 Marks)** Attempt 4 Question out of 5		
Q1	Describe the intrinsic factors required for the survival of microbes. Discuss in detail.	5	CO2
Q2	Discuss in detail the microbial growth phase.	5	CO2
Q3	What do you understand by "Brand reputation through compliance?" Discuss its importance and advantages.	5	CO3
Q4	Describe the key objectives of CODEX Alimentarius and its role in harmonizing global food safety requirements.	5	CO4
Q5	Elaborate on the factors contributing to food contamination and its preventive measures.	5	CO1
	SECTION-C (30 Marks) **(2Qx15M=30 Marks)** Attempt 2 Question out of 3		
Q1	a) What is HACCP? Mention its importance. b) What are the principles of HACCP? Describe in detail. c) Write a brief note on "Steps involved in implementing the HACCP plan."	15 (5+5+5)	CO3
Q2	Case Study Question: Scenario: A local restaurant, "Green Plate," recently faced a health crisis when multiple customers reported symptoms of food poisoning after dining there. The symptoms included nausea, vomiting, stomach cramps, and fever, and many customers had to be hospitalized. Upon investigation, health officials discovered that the contamination was due to the presence of *Salmonella* bacteria in the food, likely due to poor handling practices and inadequate sanitation measures in the kitchen.	15 (5+5+5)	CO5

	The restaurant faced immediate backlash on social media, affecting its reputation and revenue. The incident led to a mandatory shutdown by health authorities for an extensive cleaning and re-evaluation of their food safety practices. Question: Based on the scenario provided, answer the following questions: 1. Identify and explain three critical food safety violations that likely contributed to the outbreak at "Green Plate." 2. Discuss the potential long-term consequences for the restaurant, both operationally and reputationally, if food safety practices are not improved. 3. Suggest at least three preventive measures that "Green Plate" can implement to avoid future cases of food contamination. Explain how each measure will reduce the risk of contamination.		
Q3	Discuss in detail the following: a) Structured framework (DMAIC) of Six Sigma methodology. b) At least 5 importance of Six Sigma methodology. c) Applications of Six Sigma methodology.	15 (5+5+5)	CO4
	SECTION-D (20 Marks) **(2Qx10M=20 Marks)** Attempt 2 Question out of 3		
Q1	Discuss in detail “Public health impact on foodborne illness.”	10	CO1
Q2	Describe food poisoning. Write detailed notes on its mechanism and causative agents.	10	CO2
Q3	What is meant by ISO 22000? Mention its key objectives and requirements (Clause).	10	CO3