

Name: Enrolment No:	
--------------------------------------	---

UPES
End Semester Examination, December 2023

Course: Food Microbiology and safety

Program: B.Tech Food Technology

Course Code: HSFT2002

Instructions: All Questions are compulsory

Semester: III

Duration : 3 Hours

Max. Marks: 100

SECTION A

S. No.	Short answer questions/ MCQ/T&F (20Qx1.5M= 30 Marks)	30 Marks	CO
1	Relate Food microbiology and Food safety.	1.5 marks	CO1
2	Who first discover microorganisms?	1.5 marks	CO1
3	First heat treatment used for destroying microorganisms.	1.5 marks	CO4
4	Write two microorganism name used for single cell protein.	1.5 marks	CO1
5	Yogurt is prepared with andmicroorganisms.	1.5 marks	CO5
6	Vinegar haspercentage of acetic acid.	1.5 marks	CO1
7	Cider is prepared from..... fruit.	1.5 marks	CO4
8	What due you mean by CFU?	1.5 marks	CO1
9	Eucaryotic cells are generally much larger than procaryotic cells. a) True b) False	1.5 marks	CO4
10	Which microorganism is used for wine production; - a) <i>Saccharomyces</i> . b) <i>Torulopsis</i> c) <i>Penicillium</i> d) <i>Staphylococcus</i>	1.5 marks	CO1
11	Water activity at which microorganisms will not grow: - a) 0.85 a_w b) 0.80 c) 0.75 d) 0.70	1.5 marks	CO1
12	Thermophilic Bacteria are able to grow at a) 30°C b) 40°C c) 50°C d) 100°C	1.5 marks	CO5
13	Microbial Exponential phase is: -	1.5 marks	CO5

	<ul style="list-style-type: none"> a) Rapid multiplication of microorganisms b) Slow multiplication of microorganisms c) Constant multiplication of microorganisms d) Stop multiplication of microorganisms 		
14	<p>High-acid foods are those having pH</p> <ul style="list-style-type: none"> a) More than 5 b) Less than 4.6 c) Less than 6 d) Less than 5.6 	1.5 marks	CO1
15	<p>As acidity increases microorganism growth increases.</p> <ul style="list-style-type: none"> a) True b) False 	1.5 marks	CO5
16 distillate of fermented sugarcane	1.5 marks	CO5
17	Candida is a microorganism.	1.5 marks	CO1
18	Write the name of CLOSTRIDIUM LARAMIE accurately.	1.5 marks	CO5
19	Whiskey is a distilled	1.5 marks	CO1
20	Full form of ELISA is :-	1.5 marks	CO5
SECTION B (4Qx5M=20 Marks)			
Q	Short Answer Type Question (5 marks each)	20 Marks	CO
1	What are factors affecting microbial growth?	5	CO3
2	What is Sauerkraut? Explain the product sauerkraut?	5	CO4
3	What is beer and its preparation procedure ?	5	CO1
4	What is yoghurt? Explain the product yoghurt?	5	CO2
SECTION C (2Qx15M=30 Marks)			
Q	Two case studies 15 marks each subsection	30 Marks	CO
1	<ul style="list-style-type: none"> a) What is hurdle technology? How it is more beneficial than other technologies? Give one example of hurdle technology? (9 marks) b) Explain the importance of hygienic and cleanliness in food shelf life? (6 marks) 	15	CO3
2	<ul style="list-style-type: none"> a) What is HACCP and give seven principles ? (7 marks) b) Important yeast in food. Describe any three yeasts important for food ? (8 marks) 	15	CO2
SECTION- D (2Qx10M=20 Marks)			
Q	Long Answer type Questions (10 marks each)	20 Marks	CO
1	What is single cell protein and write down the source and importance of it?	10	CO5
2	What is food Toxicoinfection? Explain one microorganism of Toxicoinfection?	10	CO4