

Name:

Enrolment No:



UPES

End Semester Examination, December 2023

Course: Fundamentals of Food Science

Semester : Ist

Program: M.Sc (ND)

Duration : 3 Hours

Course Code: HSND7002

Max. Marks: 100

Instructions: Read the questions carefully.

S. No.	Section A Short answer questions/ MCQ/T&F (20Qx1.5M= 30 Marks)	Marks	COs
Q 1			
1.	What is fortification?	1.5	CO1
2.	Whey protein is made up ofand	1.5	CO1
3.	Yellowish color of milk is due to and	1.5	CO1
4.	Layer that holds yolk in the center of egg is called.....	1.5	CO1
5.	Yellow color of yolk is due to and	1.5	CO2
6.	The meat from cattle slaughtered 3-4 weeks after birth is called.....	1.5	CO2
7.	What is the role of aspirators in milling wheat?	1.5	CO2
8.	Name the protein present in wheat.	1.5	CO2
9.	'UHT' stands for :-	1.5	CO2
10.	Name any two advantages of Pasteurization.	1.5	CO3
11.	Select the wrong statement :- a) Cow milk is richer in fat than buffalo milk. b) Buffalo milk is richer in fat than cow milk.	1.5	CO3
12.	Name the protein and carbohydrate present in milk.	1.5	CO3
13.	Recall any two rich sources of Vitamin B1	1.5	CO3
14.	List any two functions of cooking.	1.5	CO3
15.	Outline any two objectives of food.	1.5	CO4
16.	Recognize the correct statement: - a. 2 gm of carbohydrate yields 8 kcal. b. 2 gm of fat yields 9 kcal. c. 1 gm of protein yields 4 kcal. d. 1 gm of alcohol yields 6 kcal.	1.5	CO4
17.	Identify the correct relationship between nutrients and their sources.	1.5	CO5

	<ul style="list-style-type: none"> a. Calcium- Spinach b. Vitamin D- Liver c. Vitamin C- Brinjal d. Iron – Whey milk 		
18.	Explain the milk powder manufacturing process.	1.5	CO5
19.	Highlight the importance of fermentation.	1.5	CO5
20.	Name all the layers found in grain of wheat.	1.5	CO5
Section B (4Qx5M=20 Marks)			
1.	According to ICMR discuss all the food groups and their sources. Draw a well labeled food pyramid.	(2+3)	CO1
2.	Draw a well labelled diagram of grain of wheat. Summarize the milling process of wheat.	(3+2)	CO2
3.	Summarize the composition and nutritive value of milk.	(2+3)	CO3
4.	Draw a well labelled diagram of egg. Discuss the role of egg in cookery.	(2+3)	CO4
Section C (2Qx15M=30 Marks)			
1.	Differentiate between enzymatic and non- enzymatic browning. Classify the water soluble and water insoluble pigments present in fruits and vegetables. Briefly outline the nutritional classification of vegetables with an example.	(5+5+5)	CO3
2.	Explain any three options :- <ul style="list-style-type: none"> a) Smoking point and factors that lowered smoking point b) Steps involved in refined oil, with the help of flowchart. c) Hydrogenation and winterization d) Emulsion and rancidity 	(5+5+5)	CO5
Section D (2Qx10M=20 Marks)			
1.	What changes take place in the carcasses of animal after slaughtering? Brief the process of ageing and tenderizing in meat.	(3+3+4)	CO4
2.	What is the significance of sensory evaluation? Elaborate on the different methods used for conducting sensory evaluation.	(6+4)	CO5