


Name:	
Enrolment No:	

UPES
End Semester Examination, May 2024

Course: Fundamental of Food Science	Semester: IV
Program: Int. BMSC N&D	Time: 03 hrs.
Course Code: HSND2005	Max. Marks: 100

Instructions: Read all the questions carefully

S. No.	Section A Short answer questions/ MCQ/T&F (20Qx1.5M= 30 Marks)	Marks	COs
Q1	According to the food pyramid, the lowest servings are composed of: A. Fruit and vegetables B. Bread and cereals C. Meat, poultry, and fish D. Fats and oil	1.5	CO-1
Q2	Provide one example of each root, tuber, and bulb vegetable.	1.5	CO-1
Q3	Fill in the blank: is the major protein of wheat.	1.5	CO-2
Q4	Provide one example of each omega-3 and omega-6 fatty acids commonly found in food.	1.5	CO-2
Q5	Foods rich in vitamins and fats are called: A. Energy-yielding foods. B. Body building foods C. Protective and Regulatory foods D. All the above.	1.5	CO-2
Q6	Proteins present in one of the foods have the highest biological value. A. Egg B. Legumes C. Rice D. Meat	1.5	CO-2
Q7	Polyphenols, carotenoids, tocopherols, and ascorbic acid are the major antioxidant molecules present in food (A-True; B-false).	1.5	CO-2
Q8	Name the pigments responsible for the yellow/orange color of egg yolk.	1.5	CO-3

Q9	What are the two common coffee varieties cultivated and consumed globally?	1.5	CO-3
Q10	Tomatoes are a rich source of lycopene, whereas carrots are rich in β -carotene (A-True; B-false).	1.5	CO-3
Q11	Sucrose is the chief carbohydrate present in milk (A-True; B-false).	1.5	CO-3
Q12	Fill in the blank: is a naturally occurring chemical compound found in the spice turmeric, responsible for the vibrant yellow color of turmeric.	1.5	CO-4
Q13	Fill in the blank: is an enzyme that is crucial in breaking fats (lipids) into smaller molecules, including fatty acids and glycerol.	1.5	CO-4
Q14	Fill in the blank: is an antinutritional compound present in cereals and legumes that can bind to minerals in the digestive tract, forming insoluble complexes, leading to decreased absorption of these minerals.	1.5	CO-4
Q15	Name the two proteolytic enzymes found in fruits.	1.5	CO-4
Q16	Identify the pigment responsible for the brown color of the eggshell. A. Ooporphyrins B. Oocyanin C. Riboflavin D. All of the above	1.5	CO-4
Q17	Fruits and vegetables contain more vitamin B12 than meat, eggs, and fish (A-True; B-false).	1.5	CO-4
Q18	In wheat, more lipids are present in the germ and bran than in other parts of the grain (A-True; B-false).	1.5	CO-4
Q19	Fill in the blank:, the primary phenolic compound present in clove oil.	1.5	CO-5
Q20	Which process involves the conversion of sugars into alcohol and carbon dioxide by yeast? A. Fermentation B. Pasteurization C. Emulsification D. Hydrolysis	1.5	CO-5
Section B (4Qx5M=20 Marks)			
Q1	Describe the various anatomical elements that constitute the structure of an egg.	5	CO-1
Q2	Describe the various processes involved in milk processing.	5	CO-3
Q3	Differentiate between climacteric and non-climacteric fruits.	5	CO-4
Q4	Explain the causes of fish spoilage.	5	CO-5

Section C (2Qx15M=30 Marks)			
Q1	Discuss in detail the quality parameters of an egg (7 marks). Explain how these parameters are evaluated (8 marks).	15	CO-2
Q2	Describe in detail the pigments found in fruits and vegetables (8 marks). Interpret the possible influence of cooking and preservation methods on these pigments (7 marks).	15	CO-3
Section D (2Qx10M=20 Marks)			
Q1	Describe in detail different cooking methods utilized in the culinary practices.	10	CO-1
Q2	Discuss the mechanism of renin enzyme-mediated coagulation of milk and describe the factors affecting the coagulation of milk.	10	CO-5