

Name:
Enrolment No:



UPES

End Semester Examination, May 2024

Course: Food Additives and Ingredients

Program: B.Tech Food Technology

Course Code: HSFT4012

Semester : VIII

Duration : 3 Hours

Max. Marks: 100

Instructions: All Questions are compulsory.

S. No.	Section A Short answer questions/ MCQ/T&F (20Qx1.5M= 30 Marks)	Marks	COs
Q 1	A substance intentionally added that maintain acidity and improves shelflife is called _____ a) Food additive b) Food adulterant c) Food contaminant d) Food material	1.5	CO1
Q 2	Butylated hydroxyanisole is a a. Artificial sweetener b. Acidulant c. Antioxidant d. Anticaking agents	1.5	CO1
Q 3	Sodium nitrite is a a. Antimicrobial agent b. Colour fixing agent c. Antifoming agent d. Both a and B	1.5	CO4
Q 4	Statement 1: Food additives are divided into direct and indirect types. Statement 2: Direct food additives become a part of the food during packaging. These are in trace amounts. a) True, False b) True, True c) False, False d) False, True	1.5	CO1
Q 5	What are Sequestrants? a) They are added to keep the food stable b) Form a complex ion with metals like copper, iron etc c) Added for color d) They keep the food oxidized	1.5	CO5
Q 6	Addition of vitamin D in food products is known as a. Addition	1.5	CO1

	<ul style="list-style-type: none"> b. Restoration c. Fortification d. None of the above 		
Q 7	<p>Lecithin is a</p> <ul style="list-style-type: none"> a. Flavouring agent b. Coloring agent 	1.5	CO4
Q 8	<p>Group D Food additives are</p> <ul style="list-style-type: none"> a. Substances have ADI b. Substances having GRAS status c. Flavoring components d. Natural components used as additive without scientific safety data 	1.5	CO1
Q 9	<p>Rice is fortified with</p> <ul style="list-style-type: none"> a. Iron, calcium & Vitamin D b. Iron, Folic acid and Vitamin A c. Iron, Folic acid and Vitamin B12 d. Iron calcium & Vitamin B1 	1.5	CO4
Q 10	<p>DHA is a</p> <ul style="list-style-type: none"> a. monosaccharide b. amino acid c. Fatty acid d. Vitamin 	1.5	CO1
Q 11	<p>Bitter almond flavoring compound is</p> <ul style="list-style-type: none"> a. Citral b. Benzaldehyde c. Cinnamaldehyde d. L-Menthol 	1.5	CO1
Q 12	<p>Disodium 5-inosinate is a</p> <ul style="list-style-type: none"> a. Color b. Preservative c. Flavor enhancer d. Humactant 	1.5	CO5
Q 13	<p>AcesulfameK</p> <ul style="list-style-type: none"> a. Hoechst Company b. Procter and Gambel c. Uniliver d. Heinzs 	1.5	CO5
Q 14	Monomer of starch is	1.5	CO1
Q 15	Name three essential amino acids.....	1.5	CO5
Q 16	Define Nutraceuticals.	1.5	CO5
Q 17	<p>Natural Pigments used as coloring agents</p> <ul style="list-style-type: none"> a. Flavonoids b. Carotenoids c. Chlorophyll d. All of the above 	1.5	CO1
Q 18	What is the color of annatto?	1.5	CO5

	<ul style="list-style-type: none"> a. Orange Yellow b. Pink c. Brown d. Blue 		
Q 19	<p>Important compound in vinegar</p> <ul style="list-style-type: none"> a. Citric acid b. Acetic acid c. Malic acid d. Ascorbic acid 	1.5	CO1
Q 20	<p>Cinnamom flavoring compound is</p> <ul style="list-style-type: none"> a. Citral b. Benzaldehyde c. Cinnamaldehyde d. L-Menthol 	1.5	CO5
Section B (4Qx5M=20 Marks)			
Q 1	What are food preservatives? Briefly explain types of food preservatives and their functions?	5	CO3
Q 2	Describe the hydrocolloids, their food uses? What are indirect food additives?	5	CO4
Q 3	What are different types of flavors used in food industry? How are flavors classified?	5	CO1
Q 4	What are applications of starch in food as additive? Which characteristics makes starch as additive?	5	CO2
Section C (2Qx15M=30 Marks)			
Q 1	<ul style="list-style-type: none"> a. What are antioxidants? What is the mechanism of action of antioxidants? (8 marks) b. Discuss the problem associated with flour. What type of additives are used in flour? (7 marks) 	15	CO3
Q 2	<ul style="list-style-type: none"> a. What type of additives are used in food for diabetes. Explain there types, properties and uses. (9 marks) b. What are synergistics? How they are important in food processing? (6 marks) 	15	CO2
Section D (2Qx10M=20 Marks)			
Q 1	What are emulsifiers? Discuss types and mechanism of action.	10	CO5
Q 2	What are dietary fibers? Discuss the application of different fibers as food additives? What are the functions of fibers in food as food additive.	10	CO4