Name:

Enrolment No:



UPES

End Semester Examination, December 2024

Course: Introduction to Food Technology

Program: B.Tech Food Technology

Course Code: HSFT1002

Duration : 3 Hours Max. Marks: 100

Semester: I

Instructions: All Questions are compulsory

SECTION A

	51	ECTION A		
S. No.	Short answer questions/ MCQ/7	T&F (20Qx1.5M= 30 Marks)	30 Marks	co
1	Water is also known as			
	a) Essential Nutrient	b) Silent Nutrient	1.5 marks	CO1
	c) Micronutrient	d) None of the above		
2	Define balanced diet			
	a) Take all nutrients in an adequate amount b) Take less amount of all nutrients		1.5 marks	CO1
	c) Take adequate amount of selective nutrients d) Take excess amount of all nutrients			
3	Unit of Energy in dietary calculations			
	a) Watt	b) Calories	1.5 marks	CO4
	c) Volt	d) Horsepower		
4	What is a safety Factor?			
	a) Less nutrient consumption than RDA	b) Same amount consumption as RDA	1.5 marks	CO1
	c) Wear safety equipment	d) Take slight more amount then RDA		
5	Which one is not a source of Energy			
	a) Starch	b) Calcium	1.5 marks	CO5
	c) Butter	d) Gluten		
6	What is the normal BMR range of an adult man?			
	a) 25 to 28 Cal/m ² body surface/h b) 45 to 48 Cal/m ² body surface/h	1.5 marks	CO1
	c) 35 to 38 Cal/m ² body surface/h	30 to 33 Cal/m ² body surface/h		
7	Sulphur containing amino acid			
	a) Glutamic acid) Lysine	1.5 marks	CO4
	c) Tryptophan d) Methionine		
8	Calculate the Body Mass Index of a man having 164 cm height and 71 kg weight?			
	a) 24.81 b	27.43	1.5 marks	CO1
	c) 21.47 d)	26.40		
9	Compositional difference between protein and carbohydrates, fats			
	a) Carbon by) Hydrogen	1.5 marks	CO4
	c) Oxygen d)	Nitrogen		
10	Who first give term protein			
	a) Luious Pasteur b) G.J. Mulder	1.5 marks	CO1
	c) J.G Molder	N.M Potter		

Q	Two case studies 15 marks each subsection	on	30 Marks	CO
SECTION C (2Qx15M=30 Marks)				
4	Define carbohydrates? Classification of carbo		5	CO2
3	Why food and Nutrition is important for Human health? How is RDA associated with health?		5	CO1
2	What are recent trends in Food Science? Development in Food sector in India.		5	CO4
1	What is rate of reaction? Factors affecting rat		5	CO3
Q	Short Answer Type Question (5 marks each		20 Marks	СО
	SECTIO	N B (4Qx5M=20 Marks)		
	c) Chicken	d) All the above		
	a) Milk	b) Fish	1.5 marks	CO5
20	Sources of colicalciferol			
	c) 40%	d) 70%		
	a) 60%	b) 80%	1.5 marks	CO1
19	What is the comparative biological activity of A2 in composition to A1			
	c) Ketonic form of vitamin A	d) Aldehyde form of vitamin A		
•	a) Esterified form of vitamin A	b) Ethanoic form of vitamin A	1.5 marks	CO5
18	Retinol palmitate is a	-,		
	c) Vitamin C and B2	d) Vitamin E and C	1.5 marks	
- /	a) Vitamin A and D	b) Vitamin E and K	1.5 marks	CO1
17	Vitamins associated with genetic regulation	,		
	c) Rickets	d) Osteoarthritis	1.5 marks	
10	a) Osteoporosis	b) Osteomalacia	1.5 marks	CO5
16	Calcium deficiency in children leads to	d) Dolon		
	c) Selenium	d) Boron	1.5 illaiks	
13	a) Iron	b) Cobalt	1.5 marks	CO5
15	Which mineral is act as antioxidant?	d) i otassium		
	c) Cobalt	b) Copperd) Potassium	1.5 marks	
14	Mineral important for insulin function a) Zinc	h) Conner	1 5 manles	CO1
14	c) Iodine Minaral important for insulin function	d) Cobalt		
	a) Iron	b) Zinc	1.5 marks	CO5
13	Mineral present in Thyroxine	h) 7:	1.5	005
12	c) Histidine	d) Aspartic		
	a) Lysine	b) Arginine	1.5 marks	CO5
12	Which amino acid is acidic in nature?			
	c) 100/nitrogen	d) 100/oxygen		
	a) 100/carbohydrate content	b) 100/hydrogen	1.5 marks	CO1
	What is the conversion factor in protein?			

1	A) What are the historical milestones in food proces? (5 marks) B) What are the food groupd? Explain different food groups with example. (5 marks) C) Describe about lipids? Different classifications of lipids with example? (5 marks)		CO3
2	If a Man carry out moderate physical activity with weight 65 kg and he consumes the following food materials: 100 g of wheat (75% CHO, 12 % protein, 3% fat), 200 ml standardised milk (protein 3%, CHO 5%, fat 4.5%), 30 g ghee(99.9% fat), 50 g pulses (protein 25%, CHO 60% and Fat 5%), 100 g apple (CHO 14%, protein 0.5% and fat 0.2%), 50 g potato (CHO 20%, Protein 2%, Fat 0.2), 50 g green leafy vegetable (20% CHO, 11% protein and 3.5% fat) and 120 g ethanol. a) Calculate the energy consumption and explain if he consumes a sufficient amount of energy? b) Elaborate about his protein requirement and he consumes the right amount of proteins?	15	CO2
	SECTION- D (2Qx10M=20 Marks)		
Q	Long Answer type Questions (10 marks each)		CO
1	a) What do you mean by fat-soluble vitamins?b) Describe the functions, RDA values, sources and their deficiency diseases of vitamin A, E and K?	10	CO5
2	a) Importance of lipids in nutrition? Describe lipid digestion & absorption?b) Describe vitamin D? Types of vitamin D, sources and deficiency disease?	10	CO4