

Name:

Enrolment No:



UPES

End Semester Examination, December 2023

Course: Principle of Nutrition

Program: B.Sc. Food, Nutrition & Dietetics

Course Code: HSND1001

Semester : I

Duration : 3 Hours

Max. Marks : 100

Instructions:

<b>Section A</b>			
S. No.	Short answer questions/ MCQ/T&F (20Qx1.5M = 30 Marks)	Marks	COs
Q1	What do you understand by the term 'nutrition'?	1.5	CO1
Q2	How many calories are there in a food that contains 10 grams of carbohydrates, 4 grams of fat, and 8 grams of protein? a. 45 Kcal b. 108 Kcal c. 76 Kcal d. 60 Kcal	1.5	CO1
Q3	What does anthropometric assessment primarily involve measuring? a. Blood biochemistry b. Cognitive function c. Physical attributes d. Dietary intake	1.5	CO1
Q4	What are the ABCDs of nutritional status assessment?	1.5	CO1
Q5	Which dietary standard is set based on Estimated Average Requirements (EARs)?	1.5	CO1
Q6	Which dietary standard is set at a level that meets the needs of practically all healthy people? a. RDA b. DRI c. UL d. EER	1.5	CO1
Q7	Define calorie.	1.5	CO1
Q8	List down any 3 factors contributing to negative energy balance.	1.5	CO1
Q9	How do saturated and unsaturated fats differ?	1.5	CO2
Q10	What is dark adaptation time?	1.5	CO2
Q11	Keeping cut oranges out in the open will immediately lose this vitamin _____. a. Vitamin A b. Vitamin B2	1.5	CO2

	c. Vitamin C d. Vitamin K		
Q12	This Vitamin _____ is involved in collagen synthesis for bones and teeth. a. Thiamine b. Vitamin C c. Riboflavin d. Pyridoxine	1.5	CO2
Q13	FAD is the coenzyme of this Vitamin _____ a. Thiamine b. Niacin c. Riboflavin d. Pyridoxine	1.5	CO2
Q14	This is an essential amino acid. a. Phenylalanine b. Serine c. Alanine d. Proline	1.5	CO2
Q15	What is a neural tube defect?	1.5	CO3
Q16	High intakes of this mineral _____, when combined with low sodium intakes, prevent and correct hypertension. a. Calcium b. Potassium c. Iron d. Iodine	1.5	CO3
Q17	List down any THREE signs and symptoms associated with Vitamin D deficiency in children.	1.5	CO3
Q18	Vitamin K activates _____ produced by the liver and aids in the process of blood clot formation.	1.5	CO3
Q19	How does the excessive use of antacids impact calcium absorption?	1.5	CO4
Q20	Why do individuals with intestinal diseases temporarily limit their intake of foods containing lactose?  a. To reduce sugar intake b. To prevent vitamin deficiency c. To avoid digestive discomfort d. To increase fiber consumption	1.5	CO4
<b>Section B</b> <b>(4Qx5M=20 Marks)</b>			
Q1	Discuss the factors which contribute to an increase in basal metabolic rate.	5	CO1
Q2	a. What are the functions of completely digestible carbohydrates? <b>2.5 marks</b> b. How do indigestible carbohydrates promote bowel health? <b>2.5 marks</b>	5	CO2
Q3	State any FIVE significant functions of triglycerides.	5	CO2
Q4	Differentiate between fat soluble and water-soluble vitamins.	5	CO2

<b>Section C</b> <b>(2Qx15M=30 Marks)</b>			
Q1	<p>Examine the processes involved in the digestion, absorption, and excretion of proteins within the human body, using a flow diagram.</p> <p>OR</p> <p>a. Discuss the role of sodium in blood volume regulation. 5 marks b. Explain the hormonal regulation of water and electrolyte balance in the human body, using clear flow chart. 10 marks</p>	15	CO2
Q2	<p>Sarah is a 26-year-old vegetarian who has recently transitioned to a plant-based diet for ethical and health reasons. She is committed to ensuring she gets adequate protein from her vegetarian sources, but she's concerned about complementary protein combinations to address limiting amino acids. She enjoys a variety of foods but is aware that certain plant-based protein sources may lack specific amino acids.</p> <p>1. What are limiting amino acids, and how are they relevant to Sarah's vegetarian diet? 2. Which plant-based protein sources can be combined to create complementary proteins that provide a complete set of essential amino acids? 3. What are the potential health implications of not addressing limiting amino acids in a vegetarian diet?</p>	15 (5 marks×3)	CO4
<b>Section D</b> <b>(2Qx10M=20 Marks)</b>			
Q1	<p>a. What is a balanced diet? <b>3 marks</b> b. Evaluate the importance of 'My Plate for the day' in guaranteeing a balanced diet for all individuals. <b>7 marks</b></p>	10	CO1
Q2	<p>a. Elaborate on the complex hormonal mechanisms governing appetite, including the regulation of hunger and satiety. b. Discuss how these hormonal signals integrate with behavioral and environmental factors to influence eating habits and body weight.</p>	10 (5 marks × 2)	CO3