


Name:			
Enrolment No:			
UPES			
End Semester Examination, December 2024			
Course: Human Nutrition		Semester : I	
Program: MSc Nutrition and Dietetics		Duration : 3 Hours	
Course Code: HSND7003		Max. Marks: 100	
Instructions: Read all the questions carefully.			
S. No.	Section A	Marks	COs
	Short answer questions/ MCQ/T&F (20Qx1.5M= 30 Marks)		
Q 1	Define hidden hunger.	1.5	CO1
Q 2	Define dietary fiber. List down on one important function of prebiotics.	1.5	CO1
Q 3	State the difference between cis and trans fatty acids.	1.5	CO2
Q 4	Determine why milk is not tolerated by people who are lactose intolerant.	1.5	CO4
Q 5	Why is Adequate Intake used instead of RDA for some nutrients?	1.5	CO4
Q 6	Outline why vitamin K deficiency is more common in infants.	1.5	CO4
Q 7	Identify how does Vitamin E protect fats from oxidation.	1.5	CO4
Q 8	Briefly elucidate the role of Vitamin C in wound healing.	1.5	CO2
Q 9	State two significant differences between plant protein and animal protein.	1.5	CO3
Q 10	Define glycemic load.	1.5	CO2
Q 11	Identify three types of anemia and the specific vitamins whose deficiency is associated with each type.	1.5	CO3
Q 12	Identify the clinical signs and symptoms when someone suffers from bilateral dermatitis.	1.5	CO3
Q 13	What is the recommended dietary intake of protein for sedentary adults? a. 0.8 grams per kilogram of body weight b. 1.0-1.2 grams per kilogram of body weight c. 1.5-2.0 grams per kilogram of body weight d. 2.5-3.0 grams per kilogram of body weight	1.5	CO2
Q 14	Reflect on the importance of HDL in heart health.	1.5	CO4
Q 15	How does the consumption of raw eggs affect biotin availability in the body?	1.5	CO3
Q 16	Reva is in the habit of having coffee with every meal. How will this habit impact the absorption of iron and calcium?	1.5	CO4
Q 17	Which of the following is a common symptom of zinc deficiency? a. Night blindness b. Delayed wound healing c. Pellagra d. Rickets	1.5	CO2

Q 18	What is hyponatremia?	1.5	CO3
Q 19	What is the role of transthyretin in the body? a. It helps with the transport of retinol b. It synthesizes vitamin D in the liver c. It acts as a coenzyme for vitamin B12 metabolism d. It stores vitamin C in the liver	1.5	CO2
Q 20	Which of the following nutrients are most likely to be lost during cooking due to exposure to heat? a. Calcium and iron b. Vitamin C and Vitamin A c. Sodium and iodine d. Magnesium and zinc	1.5	CO4
Section B (4Qx5M=20 Marks)			
Q 1	a. Explain the concept of a balanced diet. (2.5 marks) b. Discuss the key food groups and their nutritional contributions in a balanced diet. (2.5 marks)	5	CO1
Q 2	Discuss factors affecting bioavailability of minerals in the human body.	5	CO3
Q 3	Illustrate the role of vitamin D and PTH in regulating blood calcium levels in the human body.	5	CO3
Q 4	Elucidate the factors influencing negative nitrogen balance in the human body.	5	CO3
Section C (2Qx15M=30 Marks)			
Q 1	a. Outline the absorption of Vitamin B12 in the human body. (5 marks) b. Explain the significance of folic acid during pregnancy and its clinical deficiency symptoms during prenatal development. (10 marks)	15	CO3
Q 2	a. Emily sets up her camera in a dimly lit room to capture the ambiance of the scene. As she waits for her eyes to adjust to the low light, she notices changes in her vision. Illustrate the normal physiological changes that occur in the eye while they are adapting to dim light. (5 marks) b. Ashita is following a strict low-fat diet to reduce weight. She also takes fat-soluble vitamin supplements. Discuss the potential implications of this dietary approach on the absorption of fat-soluble vitamins. (5 marks) c. Analyze how does alcohol abuse contributes to deficiencies of water-soluble vitamins in the body. (5 marks)	15	CO4
Section D (2Qx10M=20 Marks)			
Q 1	Illustrate the process of digestion, absorption and transport of lipids in the human body.	10	CO2
Q 2	a. Explain the concept of energy balance in the human body. (5 marks) b. Discuss the factors influencing BMR in human body. (5 marks)	10	CO3