


Name:			
Enrolment No:			
UPES			
End Semester Examination, December 2024			
Course: Nutrition Through the Lifecycle		Semester : V	
Program: Integrated BSc MSc Nutrition and Dietetics		Duration : 3 Hours	
Course Code: HSND3011P		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 growth monitoring.	1.5	CO1
Q 2	What is small for gestational age?	1.5	CO2
Q 3	What do you understand by postpartum depression?	1.5	CO2
Q 4	After implantation, the _____ develops and begins to provide nourishment to the developing embryo.	1.5	CO1
Q 5	What physiological changes occur in blood volume and hemoglobin levels during pregnancy?	1.5	CO2
Q 6	Increased protein is necessary in pregnancy for a. preventing gestational diabetes b. sparing carbohydrates for energy needs c. growing maternal tissues d. preventing pre-eclampsia e. all of the above	1.5	CO3
Q 7	With the increase in length of infants, the proportion of _____ changes with the length of body.	1.5	CO1
Q 8	Water is particularly crucial for infants because they have _____. a. less body surface area per pound of body weight than adults b. a slow metabolic rate c. very efficient kidneys d. proportionately more body water than adults	1.5	CO3
Q 9	State in one line the impact of high protein intake on kidney function in infants.	1.5	CO3
Q 10	What is the role of placenta?	1.5	CO1
Q 11	What is Apgar scale?	1.5	CO1
Q 12	What do you understand by milestones?	1.5	CO1
Q 13	To maintain desirable iron status, breastfed infants after 6 months should receive iron supplementation. State whether the statement is true or false and provide reason for the answer. a. true b. false	1.5	CO3

Q 14	Children are likely experiencing growth stunting if their _____. a. length-for-age falls below the 5th percentile. b. BMI-for-age falls below the 25th percentile. c. weight-for-length rises above the 75th percentile. d. head circumference-for-age exceeds the 95th percentile.	1.5	CO3
Q 15	How does distorted body image lead to the development of eating disorders in teenagers?	1.5	CO3
Q 16	Differentiate between growth and development.	1.5	CO1
Q 17	Define hyperemesis gravidarum.	1.5	CO3
Q 18	Differentiate between cephalocaudal and proximodistal patterns of development.	1.5	CO1
Q 19	What is the effect of protein deficiency on prenatal development in the first trimester?	1.5	CO2
Q 20	A baby is born prematurely at 32 weeks of gestation. At the baby's 6-month post-birth checkup, the healthcare provider wants to calculate the baby's gestation-adjusted age to assess developmental milestones. Calculate the baby's gestation-adjusted age with step-wise calculation.	1.5	CO4
Section B (4Qx5M=20 Marks)			
Q 1	What is preconception care? Discuss the importance of preconception nutrition using the concept of DoHAD.	5	CO1
Q 2	What are teratogens? What are some of the main hazards to prenatal development?	5	CO3
Q 3	A 30-year-old woman in her early pregnancy, asks for guidance on which nutrients are most important for foetal cell development and growth. a. As a healthcare provider, how would you advise this woman on the key nutrients required for proper foetal growth and development? (2.5 marks) b. How would you explain the significance of adequate folate intake before and during pregnancy? (2.5 marks)	5	CO4
Q 4	Why is breastfeeding considered significantly more beneficial than bottle feeding for infants?	5	CO3
Section C (2Qx15M=30 Marks)			
Q 1	a. What physiological changes occur during menarche and how do they contribute to the development of secondary sexual characteristics in females? (7.5 marks) b. Why is weaning important, and what nutritional considerations should be kept in mind while planning complementary feeding for infants? (7.5 marks)	15	CO3
Q 2	Mrs. Verma is a 72-year-old retired school teacher who has been experiencing fatigue, joint pain, and occasional digestive discomfort. She	15	CO4

	<p>reports that she feels weaker than she used to, has lost some muscle mass, and has noticed an increase in body fat despite no significant change in her diet. She also experiences frequent urination at night and finds it harder to climb stairs due to breathlessness.</p> <p>a. Why does Mrs. Verma experience a loss of muscle mass and an increase in body fat as she ages? How can this impact her overall health? (3 marks)</p> <p>b. What age-related changes in the digestive system might contribute to Mrs. Verma's slower motility and occasional digestive discomfort? (3 marks)</p> <p>c. How does aging affect kidney filtration efficiency? (3 marks)</p> <p>d. What physiological changes in the skeletal system are responsible for Mrs. Verma's reduced bone density and joint degeneration? (3 marks)</p> <p>e. How do reduced cardiac output and lung capacity contribute to Mrs. Verma's difficulty climbing stairs and breathlessness? (3 marks)</p>		
<p>Section D (2Qx10M=20 Marks)</p>			
Q 1	Illustrate the course of prenatal development.	10	CO2
Q 2	<p>a. Discuss using a clear diagram, how the embryo receives its nutrition from the mother's body. (5 marks)</p> <p>b. Discuss the three main stages of birth. (5 marks)</p>	10	CO3