Name:

Enrolment No:

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, May 2023

Course: Pediatric and Geriatric Nutrition — Semester : VI

Program: B.Sc. Food Nutrition & Dietetics — Duration : 3 Hours

Course Code: HSND3002P — Max. Marks : 100

Instructions:

| S. No. | **Section A**<br>**Short answer questions/ MCQ/T&F**<br>**(16Qx1.5M + 2Qx3M= 30 Marks)** | **Marks** | **COs** |
|---|---|---|---|
| Q1 | Define malnutrition. | 1.5 | CO1 |
| Q2 | What is the role of NRCs? | 1.5 | CO2 |
| Q3 | Classify diarrhea as per the symptoms in children. | 1.5 | CO2 |
| Q4 | List down the different indicators to assess malnutrition in children > 6 months of age. | 1.5 | CO2 |
| Q5 | Define small for gestational age infants. | 1.5 | CO1 |
| Q6 | Differentiate between gross motor skills and fine motor skills. | 1.5 | CO1 |
| Q7 | Write down the symptoms of riboflavin deficiency. | 1.5 | CO2 |
| Q8 | What is Apgar scale? | 1.5 | CO1 |
| Q9 | Those born before the completion of _____ weeks of gestation (the time between fertilization and birth) are called as preterm infants. | 1.5 | CO1 |
| Q10 | What is dermatosis? | 1.5 | CO2 |
| Q11 | A major component of total energy expenditure, _____ is reduced in SAM babies to allow survival on limited calories. | 1.5 | CO2 |
| Q12 |  <br>Determine the name of the deficiency symptom and the nutrient that the person is deficient in. | 1.5 | CO1 |
| Q13 | Define cataract. | 1.5 | CO3 |
| Q14 | Porous bones during late adulthood is known as _____. | 1.5 | CO3 |

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| Q15 | Diagnosis of iron deficiency can be complicated by concurrent infection since many markers of iron status are altered by infection. Which of the following combinations of iron status markers is likely to be found in a person with both iron deficiency and a severe infection?<br>a. Low haemoglobin, high ferritin, high serum transferrin receptors, high hepcidin<br>b. Low haemoglobin, low ferritin, high serum transferrin receptors, low hepcidin<br>c. Low haemoglobin, low ferritin, normal serum transferrin receptors, high hepcidin<br>d. Low haemoglobin, low ferritin, low serum transferrin receptors, high hepcidin | 1.5 | CO2 |
| Q16 | What do you mean by inflammation? | 1.5 | CO4 |
| Q17 | 14 months Sumer has been brought to hospital with lethargy and unconsciousness. He weighs 5.6 kg and his length is 72 cms. His mid arm circumference is 11.6 cm and there is no pedal oedema. His blood sugar is 46 mg/dl.<br>a. Do you think Sumer has SAM?<br>b. What immediate treatment will you give to Sumer? | 3 | CO2 |
| Q18 | List down all the signs and symptoms of Vitamin B complex deficiency in children and adults. | 3 | CO4 |
| **Section B<br>(4Qx5M=20 Marks)** | | | |
| Q 1 | What are the factors that affect normal growth and development in infants, and how can they be mitigated? | 5 | CO1 |
| Q2 | Discuss the interaction of nutrition and infection in children and explain how this can lead to malnutrition. | 5 | CO1 |
| Q3 | What are the characteristic identification criteria for SAM babies for admission in a critical care unit? | 5 | CO2 |
| Q4 | Explain the importance of palliative care in the management of geriatric patients. | 5 | CO4 |
| **Section C<br>(2Qx15M=30 Marks)** | | | |
| Q1 | Tina is an 18-month-old girl who was referred to a health centre. Her arms and shoulders appear very thin. She has moderate oedema (both feet and lower legs). She does not have diarrhea or vomiting, and her eyes are clear. Her temperature was 34.5 degree centigrade and blood sugar estimation showed 50 mg/dl. Her weight is 6.5 kg and length is 81 cms.<br>a. Is Tina hypothermic?<br>b. Should Tina be admitted to the severe malnutrition ward? Why or why not?<br>c. What two immediate steps should be taken based on the above findings?<br>d. Suggest ways to examine for signs of vitamin A deficiency in her eyes. | 15 (3marks× 5) | CO2 |

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| | e. Identify any emergency signs in Tina using the ABCD steps. | | |
| Q2 | a. Accurate growth assessment is important to monitor and assess nutritional status. Train an ASHA worker on how to measure height, weight and mid upper arm circumference in a community setting and signify the importance of anthropometric measurements in assessing pediatric nutritional status. 10 marks<br><br>b. Weight for height compares a child's weight with the average weight of a normal child of the same height at the $50^{th}$ centile. Using the given information, find the centile for the given child:<br><br>$50^{th}$ centile weight of a normal 2-year-old girl child at height of 90 cm, is 12 kg. Calculate the weight for height centile for a 90 cm girl whose weight is 10 kg and interpret the level of malnutrition. 5 marks | 15 | CO1 |
| **Section D<br>(2Qx10M=20 Marks)** | | | |
| Q1 | a. Describe the nutrient requirements for infants during the first year of life.<br>b. Discuss the benefits and drawbacks of breast milk vs. formula feeding. | 10<br>(5×2) | CO1 |
| Q2 | Identify the major physiological issues and challenges associated with aging, including malnutrition and discuss nutritional implications in these conditions. | 10 | CO3 |