



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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REGINA PACIS INSTITUTE OF HEALTH SCIENCES

MAIN EXAMINATION

SEPTEMBER – DECEMBER 2019 TRIMESTER

FACULTY OF SCIENCES

DEPARTMENT OF COMMUNITY HEALTH

REGULAR PROGRAMME

CHD 221: NUTRITION AND HEALTH

Date: DECEMBER 2019

Duration: 3 Hours

INSTRUCTIONS: Answer ALL Questions in SECTION A and any TWO in SECTION B

PART I MULTIPLE QUESTIONS (MCQs) 20 MARKS

- Q1. Nutrients needed to build, repair, and maintain body cells and tissues are called?
- a) Fats
 - b) Proteins
 - c) Vitamins
 - d) Water
- Q2. What components makes up half your body weight :
- a) Fats
 - b) Proteins
 - c) Vitamins
 - d) Water
- Q3. This vitamins is needed to prevent a birth defect called spina bifida.
- a) Vitamin D
 - b) Vitamin A
 - c) Folate
 - d) Vitamins E
- Q4. What is the primary excretory route for the water-soluble vitamins?
- a) Bile

- b) Kidney
- c) Intestine
- d) Perspiration

- Q5. Which of the following conditions is an enlargement of the thyroid gland caused by an iodine deficiency?
- a) Goiter
 - b) Strictures
 - c) Hypokalaemia
 - d) Psoriasis
- Q6. The BMI range of 18.5 to 24.9 is regarded as
- a) Underweight
 - b) Desired weight
 - c) Obesity
 - d) Overweight
- Q7. A child has presented with growth retardation, inability to walk and bruises all over the body. Which of the following nutrients should be recommended as a supplement to diet?
- a) Milk
 - b) Egg yolk
 - c) Citrus fruits
 - d) Fish oil
- Q8. An 8 months old child has been brought to the pediatric out-patient. The examination reveals a thin lean emaciated child. There is history of diarrhea and refusal to feed, the diagnosis is marasmus. What could have been the source of energy to brain cells during the period of food deprivation?
- a) Glucose
 - b) Fatty acids
 - c) Ketone
 - d) Branched chain amino acids
- Q9. A 34 year old female has reported with a history of forgetfulness, loss of hair and cold intolerance. She has been diagnosed with hypothyroidism. What would be the effect of this disease on Basal Metabolic Rate (BMR).
- a) Remains unaltered
 - b) Increases
 - c) Decreases
 - d) There is initial rise with a subsequent fall.
- Q10. This nutrient is needed for making hormones, healthier skin and to make cell membranes
- a) Fat
 - b) Vitamins B12

- c) Fiber
- d) Carbohydrates

Q11. A 68 year old male has been brought to emergency in a state of coma. The patient is a known alcoholic for the past 10years. A diagnosis of hepatic encephalopathy has been made. Which of following nutrient should be avoided so as to reduce the ammonia formation in the body?

- a) Protein
- b) Carbohydrates
- c) Fats
- d) Minerals and vitamins

Q12. In diabetes mellitus there is reduced oxidation of carbohydrates; what will be the effect of insulin administration on Respiratory quotient?

- a) It will increase
- b) It will decreases
- c) No effect
- d) Initial rise and then fall

Q13. What is the daily calorie requirement of an adult male with average body weight?

- a) 1500 calories
- b) 2000 calories
- c) 2500 calories
- d) 3000 calories

Q14. The electrolyte that helps to regulate blood pressure is:

- a) Vitamin K
- b) Magnesium
- c) Potassium
- d) Sodium

Q15. Highly branched chains of glucose units result in

- a) Starch
- b) Glycogen
- c) Cellulose
- d) Galactose

Q16. A term infant is born and does well with breastfeeding .Two days later, the mother calls frantically because baby is bleeding from the umbilical cord and nostrils. Which of the following vitamins might be deficient in the baby?

- a) Vitamin A
- b) Vitamin D
- c) Vitamin K
- d) Vitamin C

- Q17. A 7 year old girl is brought to the emergency department by her parents with complaint of severe polyuria and polydipsia. Laboratory examination reveals ketones in her urine. Which of the following is the most likely source of ketones?
- Fatty acid breakdown
 - Protein break down
 - Glycogenolysis
 - gluconeogenesis
- Q18. Rich sources of Vitamin B are
- Liver
 - fresh liver oils
 - green leafy vegetables
 - egg yolk
- Q19. Condensation of glucose molecules ($C_6H_{12}O_6$) results in
- starch
 - cellulose
 - glycogen
 - glucagon
- Q20. Which enzyme helps for the digestion of fat after emulsion?
- Renin
 - Amylase
 - Lipase
 - Trypsin

PART II SHORT ANSWER QUESTIONS (SAQ'S) 40 MARKS

- Q1. State three (3) factors that influence a patients food choices?
(3 marks)
- Q2. Outline five (5) *stages of* Public Policy-Making in food security
(5 marks)
- Q3. Explain four (4) differences between simple vs. complex carbohydrates.
(5 marks)
- Q4. Outline four (4) preventive measures for of food-borne illnesses?
(4 marks)
- Q5 Describe three (3) specific interventions for a patient with anorexia nervosa disorder? (3)
(3 marks)
- Q6. State three (3) nutritional deficiencies that can occur in a pregnant woman?
(3 marks)
- Q7. State the specific nutritional interventions for a pregnant patient (6)
(6 marks)

- Q8. Outline three differences between the following concepts
(9 Marks)
- i) Marasmus and kwashiorkor
 - ii) Calcium and phosphorous
 - iii) Osteomalacia and osteoporosis

PART III LONG ANSWER QUESTIONS (LAQs) 40 MARKS

- Q1.. As a county nursing Officer you are assigned to carry out a survey on nutritional deficiency in your county.
- i. Clearly describe how you would carry out a nutritional status assessment among the under fives
(10marks)
 - ii. Describe in details the manifestation of osteomalacia
(5 marks)
 - iii. Describe nutritional management malnutrition patient
(5 marks)
- Q2. Mr A, a known chronic kidney disease patient, visits the local community clinic.
- i. Describe his diet
(5 marks)
 - ii. Create a meal plan
(15 marks)

END