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QUALIFICATION : BACHELOR OF HUMAN NUTRITION	
QUALIFICATION CODE: 08BOHN	LEVEL: 6
COURSE: MATERNAL AND EARLY CHILDHOOD NUTRITION	COURSE CODE: MCN621S
DATE: JANUARY 2024	SESSION: 2
DURATION: 3 HOURS	MARKS: 100

SECOND OPPORTUNITY / SUPPLEMENTARY: EXAMINATION QUESTION PAPER

EXAMINER: DR FRANCIS FARAI CHIKUSE

MODERATOR: DR ROSWITHA MAHALIE

INSTRUCTIONS

1. Answer all questions on the separate answer sheet.
2. Please write neatly and legibly.
3. Do not use the left side margin of the exam paper. This must be allowed for the examiner.
4. No books, notes and other additional aids are allowed.
5. Mark all answers clearly with their respective question numbers.

PERMISSIBLE MATERIALS

None

This paper consists of 8 pages including this front page

QUESTION 1: TRUE/FALSE QUESTIONS**[10 MARKS]**

Evaluate the statements and select whether the statement is true or false. Write the word 'True' or 'False' next to the corresponding number on your ANSWER SHEET. Each answer earns one (1) mark.

- 1.1 Vitamin A supplements should be given to pregnant women.
- 1.2 Breast development begins in the uterus.
- 1.3 Jaundice in infants can be reduced by encouraging early and frequent breastfeeding.
- 1.4 By 6 months, infants' birthweight must increase by half and thrice by 12 months.
- 1.5 Adequate carbohydrates, fats, and proteins for breastfeeding mothers consists of 20%, 35% and 15% respectively.
- 1.6 Nipple Shields cannot improve milk transfer and breast-feeding duration.
- 1.7 Fat and oils are made up of various type of triglycerides, which consists of three fatty acid and glycerol.
- 1.8 Prebiotics are fibre like, digestible carbohydrates that are broken down by bacteria in colon.
- 1.9 Population-wide improvements in infectious disease control and availability of safe and nutritious foods have corresponded to less infant mortality than technological advances in medical care.
10. Naegele's rule for estimated delivery date= First day of the last menstrual period +14 days minus 3 months plus one year.

QUESTION 2: MULTIPLE CHOICE QUESTIONS

[30 MARKS]

Evaluate the statements in each numbered section and select the most appropriate answer or phrase from the given possibilities. Fill in the appropriate letter next to the number of the correct statement/phrase on your ANSWER SHEET. Each answer earns one (1) mark.

- 2.1 A good supply of this is needed along with phosphorus, magnesium, and Vitamin D for fetal development of bones and teeth, as well as the mother's own body needs. Also aids in the clotting of blood.
- A. Calcium
 - B. Iron
 - C. Iodine
 - D. Folate
- 2.2 The doctor tells Esther that her baby weighs less than 2500 g and needs special care. What do you think the doctor's diagnosis on the baby's weight would be:
- A. Extremely Low Birth Weight
 - B. Very Low Birth Weight
 - C. Low Birth Weight
 - D. Preterm
- 2.3 Which of the following is **not** a fat-soluble vitamin:
- A. Vitamin A
 - B. Vitamin C
 - C. Vitamin D
 - D. Vitamin E
- 2.4 Which of the following is **not** a carcinogenic diet:
- A. Low fruits and vegetables
 - B. High antioxidants (especially Vit A/C)
 - C. Low intake of whole grains/fiber
 - D. High dietary fat intake
- 2.5 Marara a female aged 42 years has a Body Mass Index of 19 kg/m² What is the interpretation: Obese
- B. Overweight
 - C. Normal
 - D. Underweight
- 2.6 Protein is the fundamental tissue-building substance of the body and for the first 6 months of life, the protein requirements of an infant are:

- A. 0.8 g/kg
- B. 1.6 g/kg
- C. 2.2 g/kg
- D. None of the above

2.7 What is recommended proteins allowance during the 6 -12 months of life:

- A. 1.6 g/kg
- B. 2.2 g/kg
- C. 0.8 g/kg
- D. 90 to 110 kcal/g

2.8 Jasmine is an infant who loves to eat finger foods such as nuts, grapes, carrots, popcorn, and round candy. Her mom or dad should

- A. Allow her to have those finger foods.
- B. Keep them away from her for careful use only with the older child.
- C. Monitor her while she eats those foods.
- D. Mix them with liquids and let her enjoy the taste.

2.9 Average daily iron intake from foods and supplements in children and teens aged 12–19 years is:

- A. 13.3 mg/day
- B. 14.3 mg/day
- C. 15.3 mg/day
- D. 16.3 mg/day

2.10 What is the most common cause of megaloblastic anaemia in pregnant women:

- A. Reduced Vitamin D absorption
- B. Reduced Vitamin B6 absorption
- C. Reduced Vitamin B12 absorption
- D. Reduced Vitamin C absorption

2.11. Which of the following is **not** a fat-soluble vitamin:

- A. Vitamin A
- B. Vitamin C
- C. Vitamin D
- D. Vitamin E

2.12. Excess fat-soluble vitamins typically accumulate in the

- A. Liver
- B. Muscle
- C. Small intestine
- D. Pancreas

- 2.13. Replacing lost nutrients in foods is called:
- A. Fortification
 - B. Pasteurization
 - C. Enrichment
 - D. Modification
- 2.14. Which one is **not** a function of dietary fiber:
- A. Nourishes gut bacteria.
 - B. Increases feelings of fullness longer
 - C. Provide energy.
 - D. Decreases cancer risk
- 2.15. Which vitamin is primarily responsible for blood clotting:
- A. Vitamin A
 - B. Vitamin C
 - C. Vitamin E
 - D. Vitamin K
- 2.16. Spina bifida and heart disease have been associated with a deficiency in which of the following:
- A. Niacin
 - B. Riboflavin
 - C. Folate
 - D. Pantothenic acid
- 2.17. Overall, water is somewhere between _____% of a person's body weight.
- A. 15 and 20
 - B. 30 and 50
 - C. 45 and 75
 - D. 75 and 90
- 2.18. Too much water in spaces surrounding cells is known as
- A. Osmosis
 - B. Ions
 - C. Edema
 - D. Cations
- 2.19. Absorption of minerals can be limited by each of the following factors **except**.

- A. Physiological need
- B. Presence of competing minerals
- C. Presence of hypertension or osteoporosis
- D. Presence of fiber

2.20. The most sodium in a typical Namibian diet comes from

- A. Table salt
- B. Sauces and condiments
- C. Processed food
- D. Smoked meat and cheeses

2.21. Which mineral is responsible for making muscles contract or relax:

- A. Boron
- B. Magnesium
- C. Sodium
- D. Calcium

2.22. Which mineral is known for transporting oxygen in blood:

- A. Iron
- B. Zinc
- C. Copper
- D. Calcium

2.23. Which mineral deficiency is the most common worldwide:

- A. Sodium
- B. Phosphorus
- C. Iron
- D. Calcium

2.24. Over 99% of calcium in the body is found within the

- A. Liver and spleen
- B. Muscles and skin
- C. Bones and teeth
- D. Stomach and small intestine

2.25. Which of the following is **not** considered a pathogenic organism:

- A. Bacteria
- B. Virus
- C. Chemicals
- D. Parasites

- 2.26. Which is **not** considered a common food allergen:
- A. Milk
 - B. Peanut
 - C. Soya beans
 - D. Chicken
- 2.27. Which is added to foods to prevent spoilage and increase shelf life:
- A. Pasteurization
 - B. Preservation
 - C. Irradiation
 - D. Microorganism
- 2.28. Lactose, disaccharide e.g., milk sugar is made up of which 2 monosaccharides:
- A. Glucose and Galactose
 - B. Glucose and Fructose
 - C. Glucose and Maltose
 - D. Glucose and Sucrose
- 2.29. Which of the following is a water-soluble vitamin:
- A. Vitamin A
 - B. Vitamin C
 - C. Vitamin D
 - D. Vitamin E
- 2.30. Which one of the following is **not** a common problem in pregnant women nutrition:
- A. Malaria
 - B. Obesity
 - C. Diabetes
 - D. Dyslipidemia

SECTION B: SHORT/LONG ANSWER QUESTIONS

[60 MARKS]

Please answer ALL of the questions in this section.

QUESTION 3

[25 MARKS]

3.1 Mrs. A is a 48-year-old Zimbabwean woman with obesity. Insulin treatment was initiated two years ago after development of background retinopathy and peripheral neuropathy. Her mother died from a myocardial infarction (MI) at the age of sixty-eight, and her brother also developed an MI, at the age of fifty-five.

- (i) List **three (3)** risk factors of Type 2 Diabetes Mellitus. (3)

- (ii) Name **four (4)** complications of Type 2 Diabetes Mellitus. (4)
- 3.2 Mary is a 23-year-old pregnant woman. Give an outline on **how much and how** she should exercise during pregnancy. (4)
- 3.3 After Mary delivers her baby, she would like to breastfeed, but likes occasionally drinking **alcohol** and **coffee**. How would you advise her? (4)
- 3.4 State the benefits of breastfeeding to the:
- i) Mother (4)
 - ii) Infants and Children (4)
 - iii) Families and Society (2)

QUESTION 4

[35 MARKS]

- 4.1 Discuss **four (4)** nutritional problems associated with school aged children and toddlers. (4)
- 4.2 Outline **four (4)** problems in infant nutrition. (8)
- 4.3 State **two (2)** Omega-3 fats required during pregnancy usually plentiful from salmon. (4)
- 4.4 State **three (3)** advantages of using Nipple Shields as technological support during breastfeeding. (6)
- 4.5 A 28-year-old lady is pregnant. Her last menstrual period began on the 7 March 2023. When is her baby due, based on Naegle's rule? (6)
- 4.6 State the energy and protein needs in the first 6 months among infants. (7)

END OF QUESTION PAPER