

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELORS OF SCIENCE IN
HUMAN NUTRITION AND DIETETICS**

HNDS 224: MATERNAL AND CHILD NUTRITION

STREAMS: B.Sc. (HUMAN NUTRITION AND DIETETICS) Y2S2

TIME: 2 HOURS

DAY/DATE: THURSDAY 13/04/2023

8.30 A.M. –10.30 A.M.

INSTRUCTIONS:

- Answer ALL questions in Section A and B and choose any two questions in Section C
- Do not write anything on the question paper
- **No** use of mobile phones or any other unauthorized materials
- Write your answers legibly and use your time wisely

SECTION A: MULTIPLE CHOICE QUESTIONS [ONE MARK EACH] [20 MARKS]

1. The recommended daily allowance of iron for pregnant women is:
 - A. 5 milligrams
 - B. 10 milligrams
 - C. 30 milligrams
 - D. 50 milligrams
2. Which one of the following statements is incorrect?
 - A. Fertility is optimum within the BMI range of 18.5–24.9 kg/m²
 - B. A waist-to-hip ratio >0.8 is associated with increased fertility
 - C. Weight normalization is frequently all that is needed to help infertile women to conceive
 - D. No alcohol should be consumed by women trying to get pregnant or those who may be pregnant

3. Which one of the following foods is safe to give as complementary foods for infants?
 - A. Nuts
 - B. Honey
 - C. Soft-boiled eggs
 - D. None of the above
4. A pregnant woman should eat how many extra calories per day?
 - A. 300
 - B. 500
 - C. 1000
 - D. 2000
5. Pregnant women should increase their daily calcium intake by:
 - A. 20 percent
 - B. 30 percent
 - C. 40 percent
 - D. 50 percent
6. In the past two decades, interest in maternal nutrition has been heightened following the findings of epidemiological studies that show links between early experience and later health. Which of the following statements is true:
 - A. Although early life may appear to be important, observed links to risk of cardiovascular disease and type 2 diabetes can be largely explained by adult lifestyle
 - B. The observed links between early experience and later health have only been seen in past studies
 - C. The epidemiological evidence shows programmed differences in physiology are only linked to events before birth
 - D. The epidemiological evidence shows programmed differences in physiology are linked to events before birth and in early postnatal life
7. Lactoferrin in human milk:
 - A. Promotes calcium absorption
 - B. Binds iron to restrict bacterial growth
 - C. Facilitates fat digestion
 - D. None of the above

8. Which of the following statements is/are true about the effect of smoking on breastfeeding?
- A. Suppresses milk production
 - B. Alters the composition of breast milk
 - C. Increases the risk of early cessation of breastfeeding
 - D. All of the options given are correct
9. The extra energy cost of pregnancy is met by:
- A. Increased efficiency of energy utilization
 - B. Reduced physical activity
 - C. Increased food intake
 - D. All of the above
10. A low-birth-weight baby is defined as one that weighs:
- A. <1500 g at birth
 - B. <2000 g at birth
 - C. <2500 g at birth
 - D. <3000 g at birth
11. All females who could become pregnant are recommended to take:
- A. 400 µg folic acid each day until pregnancy is confirmed
 - B. 400 µg folic acid each day from the time pregnancy is confirmed until delivery
 - C. 400 µg folic acid each day from at least 3 months before conception until week 12 of pregnancy
 - D. None of the above
12. Infants born to mothers who are vegan may be at increased risk of deficiency of which nutrient?
- A. Vitamin C
 - B. Folate
 - C. Vitamin B12
 - D. Calcium
13. Which one of the following statements is incorrect?
- A. Introduction of complementary foods too early may give rise to allergic reactions
 - B. Delayed introduction of complementary foods may give rise to growth faltering
 - C. Breastfeeding should continue to the age of 2 years or beyond

- D. Low-fat and high-fibre diets are appropriate for infants under the age of 2
14. Which one of the following nutrient deficiency in a pregnant woman can lead to neural tube defect in her child?
- A. Iron
 - B. Folate
 - C. Calcium
 - D. Omega 3
15. Women planning to conceive should avoid:
- A. Excessive caffeine
 - B. Excessive vitamin A
 - C. Unpasteurised milk and cheese
 - D. All of the above
16. According to the WHO, obesity in children and teenagers aged 5–19 is defined as:
- A. BMI greater than 25 kg/m²
 - B. BMI greater than 30 kg/m²
 - C. BMI greater than two standard deviations above the mean for their particular age and sex
 - D. None of the above
17. Low birth weight in infants is associated with which disease in adulthood?
- A. Type 2 diabetes
 - B. Stroke
 - C. Coronary heart disease
 - D. All of the above
18. Pregnant women should diet to keep from gaining too much weight.
- A. True
 - B. False
19. Most of the weight a woman gains during pregnancy is in the form of fat.
- A. True
 - B. False
20. A pregnant woman should eat 4 servings from the milk group each day.
- A. True

B. False

SECTION B: SHORT ESSAY QUESTIONS. **[30 MARKS]**

1. Explain why good maternal nutrition is important during critical periods of fetal development. [4 marks]
2. Outline four (4) benefits of appropriate breastfeeding practices to the mother. [4 marks]
3. Mention five (4) characteristics of breast milk that make it unique and the best food for infants in the first six month of their life. [4 marks]
4. Identify four (4) risks associated with early introduction of complementary foods to an infant. [4 marks]
5. Explain the dietary management of nausea as a common nutrition problem during pregnancy. [4 marks]
6. Highlight four (4) reasons for high rates of maternal and child mortality in Africa. [4 marks]
7. Explain four (4) factors to consider when formulating a complementary child diet. [4 marks]
8. State the policy governing infant feeding in the context of HIV/AIDS in Kenya. [2 marks]

SECTION C: LONG ESSAY QUESTIONS. **[30 MARKS]**

1. Describe the 10 steps to successful breastfeeding that must be implemented by any facility contributing to the care of newborn infants in order to become a baby friendly hospital. [10 marks]
 2. Describe five (5) challenges facing the implementation of maternal and child nutrition programs in your country. [10 marks]
 3. Discuss five (5) factors influencing the growth and development of a child. [10 marks]
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