



PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY
Faculty of Health and Applied Sciences

Department of Health Sciences

QUALIFICATION: BACHELOR OF HUMAN NUTRITION	
QUALIFICATION CODE: 08B0HN	LEVEL: 6
COURSE CODE: MCN 621S	COURSE NAME: MATERNAL CHILD NUTRITION
SESSION: NOVEMBER 2019	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

1st OPPORTUNITY QUESTION PAPER	
EXAMINER(S)	Dr Adam Flowers, Mr George Waliomuzibu
MODERATOR:	Ms Roswitha Mahalie

INSTRUCTIONS
<ol style="list-style-type: none">1. Answer ALL the questions.2. Write clearly and neatly.3. Number the answers clearly.

PERMISSIBLE MATERIALS

1. Examination paper.
2. Examination script.

THIS QUESTION PAPER CONSISTS OF 5 PAGES
(Excluding this front page)

SECTION A: TRUE-FALSE/FILL IN THE BLANK /MULTIPLE CHOICE (20 MARKS)**1. TRUE-FALSE QUESTIONS [5 MARKS]**

Evaluate the statements in each numbered section and determine whether the statement is true or false. Next to the question number, on your ANSWER SHEET, fill in the appropriate answer, using **T** for True, and a **F** for False for of the statement/phrase. (1x5=5)

- 1.1 Gastrulation divides the bilaminar disk into three layers.
- 1.2 Anencephaly is a neural tube defect caused by low folate.
- 1.3 During pregnancy, the fats eaten provide energy and help build many fetal organs and the placenta.
- 1.4 Vitamin B works with calcium to help the fetus's bones and teeth develop.
- 1.5 The hormones made during pregnancy cause the ligaments that support the joints to become stronger and tighter.

2. MATCHING [10 MARKS]

Evaluate the definitions in each numbered section and select the most appropriate answer or phrase from the given possibilities. Next to the question number, fill in the appropriate letter of the correct answer/phrase on your ANSWER SHEET. (1x10=10)

2.1 Occurs around day 7 after fertilization.	A. Ampulla
2.2 Immediately after fertilization the newly developing human life form is called this.	B. Endoderm
2.3 Process that begins with the primitive streak formation.	C. Implantation
2.4 After implantation the human life form is called this.	D. Zygote
2.5 This is the process where the enzymes from the head of the sperm digest the outside layers of the oocyte.	E. Zona Pellucida
2.6 This is the outside layer of the oocyte, and is made of glycoproteins.	F. Ectoderm
2.7 This is the most common site of ectopic pregnancy.	G. Gastrulation
2.8 This process starts with groove formation, and then tube formation.	H. Neurulation
2.9 This embryonic layer produces the skin and nervous system.	I. Acrosome Reaction
2.10 This embryonic layer produces the gastrointestinal tract.	J. Embryo

3. MULTIPLE CHOICE QUESTIONS

[5 MARKS]

Evaluate the statements in each numbered section and select the most appropriate answer or phrase from the given possibilities. Next to the question number, fill in the appropriate letter of the correct statement/phrase on your ANSWER SHEET. (1x5=5)

- 3.1 A woman is potentially fertile between days _____ after the beginning of her menstrual cycle.
- a. 5-10
 - b. 7-14
 - c. 8-18
 - d. 13-17
 - e. 14-28
- 3.2 The following nutrient is necessary for central nervous system development (particularly the hippocampus, or memory center):
- a. Iron
 - b. Folic Acid
 - c. Calcium
 - d. Choline
 - e. Vitamin D
- 3.3 Mothers can decrease their intake of which of the following nutrients when they move from pregnancy to lactation:
- a. Iron
 - b. Folic Acid
 - c. Calcium
 - d. Choline
 - e. Vitamin D
- 3.4 After the hollowing out of the developing mass of cells, the developing human is called a:
- a. Trophoblast
 - b. Syncytiotrophoblast
 - c. Blastocyst
 - d. Inner cell mass
 - e. Morula

- 3.5 What are the roles of follicle-stimulating hormone (FSH) and luteinizing hormone (LH) in the follicular phase of the menstrual cycle?
- Stimulate progesterone production
 - Stimulate eggs to grow in the ovaries
 - Release eggs from the ovaries
 - FSH and LH are not released during the follicular phase
 - To stimulate the lining of the uterus to proliferate

SECTION B: SHORT/LONG ANSWER QUESTIONS (80 MARKS)

QUESTION 4

[31 MARKS]

Read each question completely, and on your ANSWER SHEET, next to the question number, please write the full answer to the questions.

- 4.1 In babies who are breastfeeding, how does adequate DHA intake for the mother affect the development of the baby? (2)
- 4.2 Why is folic acid (folate) needed during pregnancy, and what is the amount required per day (in mcg) during preconception and during pregnancy? (3)
- 4.3 Name three (3) types of fish that should not be eaten during pregnancy, and why they should be avoided. (4)
- 4.4 Maternal vitamin D insufficiency is linked to which four (4) problems for babies: (4)
- 4.5 Explain the term dietary assessment. (2)
- 4.6 Outline three (3) retrospective methods of dietary assessment. (3)
- 4.7 Outline three (3) indirect methods of nutritional assessment. (3)
- 4.8 Explain the steps involved in measuring the nutritional status of the children under five years using the Mid Upper Arm Circumference (MUAC) tape. (10)

QUESTION 5**[10 MARKS]**

Read the scenario, and then each question completely, and on your ANSWER SHEET, next to the question number, please write the full answer to the questions.

Scenario: Your cousin and her husband are recently married, and would like to have a baby. They know you are studying Human Nutrition, and have some questions about having a baby. Please counsel them.

- 5.1 What can the husband do in terms of diet, in order to increase his chances of having healthy sperm? (2)
- 5.2 What BMI (body mass index) range is ideal for the mother to increase her chance of becoming pregnant? (2)
- 5.3 What habits could be decreasing their chances of becoming pregnant, or increasing the possibility of miscarriage? (3)
- 5.4 What are three supplements you would consider for your cousin in addition to a regular multivitamin? (3)

QUESTION 6**[22 MARKS]**

Read the scenario, and then each question completely, and on your ANSWER SHEET, next to the question number, please write the full answer to the questions.

- 6.0 *Scenario: You are working as a nutritionist with Central hospital in Windhoek and during your counselling session, you come across a working mother with inability to breastfeed her four (4) month old baby due to her busy work schedule. The mother explains that her employer gave her three (3) month maternity leave and during this time she was able to exclusively breastfeed her baby. After the maternity leave, she desired to continue exclusively breastfeeding her baby up to six (6) months but she is unable to do so due to her busy work schedule. The mother further explains that she leaves her home very early in the morning and returns late in the evening exhausted.*
- 6.1 Explain three (3) ways the mothers can continue exclusively breastfeeding her baby despite the busy work schedule. (6)
- 6.2 Explain five (5) steps the mother can follow to express her breast milk. (10)
- 6.3 Outline three (3) methods of storing expressed breastmilk. (3)
- 6.4 Outline three (3) ways the government/employers can support mothers to breastfeed babies up to 6 months. (3)

QUESTION 7

(17 MARKS)

- 7.0 *Background: Proper attachment and positioning of the baby on the breast is important in ensuring that the baby suckles well and obtains the right amount of breastmilk.*
- 7.1 Explain the four (4) factors that are considered to show proper breast attachment. (8)
- 7.2 Outline three (3) best ways to position a baby on the breast. (3)
- 7.3 Explain three (3) ways to treat cracked nipples. (6)

GOOD LUCK!!!