



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

**Faculty of Health, Natural
Resources and Applied
Sciences**

School of Health Sciences

Department of Preventative
Health Sciences

13 Jackson Kaujeua Street T: +264 61 207 2970
Private Bag 13388 F: +264 61 207 9970
Windhoek E: dphs@nust.na
NAMIBIA W: www.nust.na

QUALIFICATION : BACHELOR OF HUMAN NUTRITION	
QUALIFICATION CODE: 08BOHN	LEVEL: 6
COURSE: MATERNAL AND EARLY CHILDHOOD NUTRITION	COURSE CODE: MCN621S
DATE: NOVEMBER 2023	SESSION: 1
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY: 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 4 pages including this front page

QUESTION 1: TRUE/FALSE QUESTIONS**[5 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 Gastrulation divides the bilaminar disk into three layers.
- 1.2 Anencephaly is a neural tube defect caused by high 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 A Body Mass Index (BMI) between 15 and 25 results in the best chances of becoming pregnant.

QUESTION 2: MATCHING QUESTIONS**[5 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.

Each answer earns one (1) mark.

- 2.1 Occurs around day 7 after fertilization.
 - 2.2 Immediately after fertilization the newly developing human life form is called this.
 - 2.3 This process starts with groove formation, and then tube formation.
 - 2.4 This embryonic layer produces the skin and nervous system.
 - 2.5 This embryonic layer produces the gastrointestinal tract.
- a. Endoderm
 - b. Implantation
 - c. Ectoderm
 - d. Neurulation
 - e. Zygote

QUESTION 3: MULTIPLE CHOICE

[5 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.

- 3.1 The following nutrient is necessary for central nervous system (CNS) development. (particularly the memory center):
- a. Iron
 - b. Vitamin B12
 - c. Calcium
 - d. Choline
 - e. Vitamin D
- 3.2 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
- 3.3 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
- 3.4 What are components of preconception care that should be addressed to improve outcomes for the mother and child?
- a. Medical, behavioral, and social
 - b. Social, financial, and medical
 - c. Social, financial, and religious
 - d. Medical, financial, and behavioral
- 3.5 What are the roles of FSH and LH in the follicular phase of the menstrual cycle?
- a. Stimulate progesterone production
 - b. Stimulate eggs to grow in the ovaries
 - c. Release eggs from the ovaries
 - d. FSH and LH are not released during the follicular phase
 - e. To stimulate the lining of the uterus to proliferate

SECTION B: SHORT/LONG ANSWER QUESTIONS**[85 MARKS]**

Please answer ALL of the questions in this section.

QUESTION 4**[25 MARKS]**

- 4.1 Why is folic acid (folate) needed during pregnancy, and what is the amount required per day (in mcg) during preconception and during pregnancy? (5)
- 4.2 What are **three (3)** potential future consequences on childbearing that can result from being infected by sexually transmitted diseases? (3)
- 4.3 Explain **five (5)** benefits of exercise during pregnancy. (5)
- 4.5 Discuss the following embryology processes:
- a) Gastrulation (6)
 - b) Neurulation (6)

QUESTION 5**[30 MARKS]**

- 5.1 Elaborate using examples, **five (5)** causes of failure to thrive (FTT) in children. (10)
- 5.2 List **five (5)** important nutrients and good sources for school aged vegetarian children. (5)
- 5.3 Outline methods used to identify disabilities in early childhood. (5)
- 5.4 Describe **five (5)** common nutritional problems and their causes among toddlers and pre-school aged children. (5)
- 5.5 State the energy and protein needs in the first 6 months among infants. (5)

QUESTION 6**[30 MARKS]**

- 6.1 Highlight any **three (3)** physical, **three (3)** social and **three (3)** emotional consequences of obesity among children. (9)
- 6.2 Exclusive breastfeeding means feeding your baby only breast milk, not any other foods or liquids (including infant formula or water), except for medications or vitamin and mineral supplements. State the benefits of breastfeeding to the:
- i) Mother (5)
 - ii) Infants and Children (5)
 - iii) Families and Society (3)
- 6.3 Write short notes on **four (4)** problems in infant nutrition. (8)

END OF QUESTION PAPER