



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF HEALTH AND APPLIED SCIENCES**

**DEPARTMENT OF HEALTH SCIENCES**

<b>QUALIFICATION :</b> BACHELOR OF ENVIRONMENTAL HEALTH SCIENCES	
<b>QUALIFICATION CODE:</b> 08 BOHS	<b>LEVEL:</b> 6
<b>COURSE NAME:</b> FOOD AND MEAT HYGIENE 2B	<b>COURSE CODE:</b> FMH 612S
<b>SESSION:</b> NOVEMBER 2019	<b>PAPER:</b> THEORY
<b>DURATION:</b> 3 HOURS	<b>MARKS:</b> 120

<b>FIRST OPPORTUNITY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER</b>	<b>MS. CHARMAINE JANSEN</b>
<b>MODERATOR:</b>	<b>PROF SYLVESTER MOYO</b>

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

PERMISSIBLE MATERIAL: NONE

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

## SECTION A [20 MARKS]

### QUESTION 1 (10 MARKS)

- 1.0 Assess the following statements and decide whether they are true or false. Write True for a true statement and False for a false statement.
- 1.1 Food handlers are tested Blood pressure, salmonella and HIV /Aids. [1]
- 1.2 Zinc and copper cooking utensils should be avoided because foods can lose its nutritional value. [1]
- 1.3 Fats and fatty oils are water-insoluble substances with a liquid or solid consistency. [1]
- 1.4 Medical certificates should be renewed monthly. [1]
- 1.5 An organism that is considered a nuisance to man, most usually having pathogenic properties is mosquitoes. [1]
- 1.6 Chlorine is corrosive at high temperatures and Iodine kills all types of vegetative cells. [1]
- 1.7 Marasmus is the progressive emaciation due to lack of protein & calories preventing growth. [1]
- 1.8 Good sanitation means 50 % of cleaning removal of dirt and Micro-organisms disinfection 50%. [1]
- 1.9 Building of a food outlet should have outside trenches of 250 mm width, outside walls of 220 mm an inside wall of 330 mm. [1]
- 1.10 Cholesterol is carried in the blood attached to proteins called lipoproteins. [1]

### QUESTION 2 (10 MARKS)

- 2.0 Select the best appropriate answer for each statement and write the corresponding letter and description for your answer.
- 2.1 Planning and design of food premises improve food hygiene by: [1]
- A. Increase cross contamination
  - B. Reducing the likelihood of pest infestation
  - C. Increasing the efficiency of equipment for hot- and- cold- holding of food.
  - D. Reduce compliance with relevant hygiene standards
  - E. None of the above

2.2 Which of the following statement best distinguishes sanitizing from cleaning? [1]

- A. Cleaning is the removal of soil from food processing equipment and the surrounding environment, while sanitizer is applied to destroy vegetative cells of microorganisms that were not removed through cleaning.
- B. Cleaning is the removal of dirt and soil which would provide food for the growth of bacteria.
- C. Cleaning does not kill bacteria, while sanitizing reduces the numbers of bacteria present on a food surfaces to an acceptable level.
- D. Cleaning needs to be carried out before sanitizing can be done.
- E. None of the above

2.3 Which of the following statements best describes the digestion of fats? ----- [1]

- A. In the digestive system, fats are broken down by enzyme amylase into triglycerides and fatty acids, which ease its absorption in the blood.
- B. Lipase breaks down the fats into glycerol and fatty acids and is absorbed by blood stream as glycerides.
- C. Amylase breaks down fat into glycerol and fatty acids assemble them into triglycerides, which are then absorbed into the blood stream.
- D. Only a) and b) are correct
- E. None of the above

2.4 Which of the following factors should be considered during location selection for food establishments? [1]

- A. Polluted areas which are likely to threaten food safety
- B. Areas prone to flooding and pest's infestation
- C. Area with difficult access to facilitate effective waste removal
- D. Traffic movement to the premises
- E. All of the above

2.5 A clean surface is: [1]

- A. A surface that is free of soil
- B. A surface which bacteriological counts and chemical contents are unknown
- C. A surface that is chemically and bacteriological clean
- D. A surface which is presentably shiny
- E. None of the above

2.6 Cleaning process for equipment, premises, utensils, clothing etc. have all five basics stages namely: [1]

- A. Preparation or pre-cleaning, cleaning operation, rinsing, disinfecting, drying
- B. Detergent formulations, preparation, cleaning, rinsing, sanitizing and drying
- C. Chemical preparation, pre-cleaning, cleaning, sanitizing, air drying
- D. Dilution of chemicals, cleaning, rinsing, disinfections, wiping
- E. None of the above

- 2.7 Which of the following statements best distinguishes between saturated and unsaturated fat? [1]
- A. Saturated fats are liquid at room temperature, and unsaturated fats are solid at room temperature.
  - B. Unsaturated fats are derived from plants, while saturated are derived from animal products such as meat and milk.
  - C. Unsaturated fats are unhealthy when compared to saturated fats.
  - D. Saturated fats are olive oil, and unsaturated fats are margarine at room temperature.
  - E. All of the above.
- 2.8 Functions of proteins, minerals and water in the body are to:----- [1]
- A. Enhancement of body functions and to increase appetite
  - B. Body building, growth and repair
  - C. Tissue repair, enhance body repair and resistance to diseases
  - D. Only A) and B) are correct
  - E. None of the above
- 2.9 Functional consequences of Vitamin A deficiency include: ----- [1]
- A. Failure for the Body to fight new parasitic infections
  - B. Bilharzia infection
  - C. Hepatitis E infection
  - D. Night blindness
  - E. None of the above.
- 2.10 An expired product can: [1]
- A. Still be eaten
  - B. Still be sold
  - C. Be condemned
  - D. Can be detained
  - E. None of the above

## SECTION B [40 MARKS]

### QUESTION 3 (12 MARKS)

- 3.1 Inform the lawyer about the two common legislations used on a regular basis as an EHP . [2]
- 3.2 List at least five (5) factors that affects cleaning. [5]
- 3.3 Briefly describe the requirements for labelling. [5]



**QUESTION 4 (20 MARKS)**

- 4.1 According to the codex Alimentarius food can be define as. [3]
- 4.2 Outline the implications and risks associated with the use of genetically modified organisms in food in terms of human health and the possible environmental effects. [6]
- 4.3 Why do you think it is important for Environmental Health Practitioners to regularly test frying oil that is sold to the general public, used in restaurants and other fast food outlets? [5]
- 4.4 Mention the factors Affecting the Growth of Microorganisms. [6]

**QUESTION 5 [8 MARKS]**

- 5.0 Prepare a summary explaining to food managers the different labelling dates. Examples of foodstuffs will preferable. [8]

**SECTION C [60 MARKS ]**

**QUESTION 6 (40 MARKS)**

- 6.1 Explain by using examples the duties and task of an EHP to a difficult owner of a food industry. [20]
- 6.2 A business man requests your advice regarding building and running food procession plant / kitchen. What will you advise him regarding the requirements for the buildings layout and the registration of the business. [20]

**QUESTION 7 (20 MARKS)**

- 7.0 Educate the community on pest control (cockroaches) [20]
- A Evident of pest
- B. Control measures of pest.

**GOOD LUCK**