



**PAMIBIA UNIVERSITY**  
OF SCIENCE AND TECHNOLOGY

**FACULTY OF HEALTH, APPLIED SCIENCES AND NATURAL RESOURCES**  
**DEPARTMENT OF HEALTH SCIENCES**

<b>QUALIFICATION :</b> BACHELOR OF ENVIRONMENTAL HEALTH SCIENCES	
<b>QUALIFICATION CODE:</b> 08BOHS	<b>LEVEL:</b> 6
<b>COURSE CODE:</b> FMH611S	<b>COURSE NAME:</b> FOOD AND MEAT HYGIENE 2A
<b>SESSION:</b> JULY 2022	<b>PAPER:</b> THEORY
<b>DURATION:</b> 3 HOURS	<b>MARKS:</b> 100

<b>SUPPLEMENTARY/SECOND OPPORTUNITY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER(S)</b>	<b>MR. IMMANUEL ZERIAPI</b>
<b>MODERATOR:</b>	<b>MR. JOSHUA HIDINWA</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. Mark all answers clearly with their respective question numbers.</li><li>4. No books, notes and other additional aids are allowed</li></ol>	

**PERMISSIBLE MATERIALS: NONE**

**THIS QUESTION PAPER CONSISTS OF 3 PAGES (Including this front page)**

## SECTION A (35 MARKS)

### QUESTION 1

[10 MARKS]

- 1.0 Indicate if the below statements are true or false by writing "True" or "False" next to the corresponding question in your answer book.
- 1.1 Every type of bacteria can give people food poisoning. (1)
- 1.2 Use before date on food package is about quality and the most important date to remember. (1)
- 1.3 Bread is not a high-risk food, doesn't last long enough to become infected. (1)
- 1.4 HACCP is an abbreviation of Hazard Analysis Control Checking Point. (1)
- 1.5 Inspection is an effective way of preventing physical contamination of food. (1)
- 1.6 Best before date on food package is about safety and not quality of the food content. (1)
- 1.7 4 – 10 degrees Celsius should be the ideal temperature to store foodstuffs in the fridge. (1)
- 1.8 Sanitizer is the effective method to kill bacteria. (1)
- 1.9 Raw poultry is most likely to cause Diarrhoea.
- 1.10 First-ever World Food Safety Day, 07 June 2019 elevates attention to dangerous foodborne diseases in Africa. (1)

### QUESTION 2

[10 MARKS]

- 2.0 Define the following terms:
- 2.1 Death phase (2)
- 2.2 Stationary phase (3)
- 2.3 Semi-perishable food (2)
- 2.4 Perishable food (3)

**QUESTION 3****[15 MARKS]**

- 3.1 List five (5) Intrinsic factors affecting microbial growth in food. (5)
- 3.1 Name five (5) causes of food spoilage. (5)
- 3.2 Give a brief explanation of extrinsic factors affecting microbial growth. (5)

**SECTION B (20 MARKS)****QUESTION 4****[20 MARKS]**

- 4.1 List the conditions that have the potential to destroy bacterial growth. (10)
- 4.2 Briefly explain key sources of contamination in the milk production process. (10)

**SECTION C (45 MARKS)****QUESTION 5****[25 MARKS]**

- 5.1 Give a short discussing in terms of environmental hygiene and personal hygiene during food production. (10)
- 5.2 Identify and define three (3) main types of contaminations which endanger human health. (15)

**QUESTION 6****[20 MARKS]**

- 6.0 Complete the table below in terms of common Bacterial Food Borne Pathogens. (20)

<b>Micro-organisms</b>	<b>Primary sources</b>	<b>Associated Food</b>
Listeria monotogenes	(6.1)	(6.2)
Brucillus cereus	(6.3)	(6.4)
Salmonella	(6.5)	(6.6)
Campylobacter jejuni	(6.7)	(6.8)
Escherichia coli	(6.9)	(6.10)
Yersinia enterocolitica	(6.11)	(6.12)
Staphylococcus spp	(6.13)	(6.14)
Shigella spp	(6.15)	(6.16)
Vibrio spp	(6.17)	(6.18)
Clostridium botulinum	(6.19)	(6.20)

**GOOD LUCK**