



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

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

**DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES SCIENCES**

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| <b>QUALIFICATION: BACHELOR OF NATURAL RESOURCES MANAGEMENT (NATURE CONSERVATION)</b> |  |
| <b>QUALIFICATION CODE: 07BAGR</b>  | <b>LEVEL: 6</b>                                      |
| <b>COURSE CODE: APT621S</b>  | <b>COURSE NAME: AGRO PROCESSING &amp; TECHNOLOGY</b> |
| <b>DATE: NOVEMBER 2022</b>   |  |
| <b>DURATION: 3 HOURS</b>   | <b>MARKS: 100</b>                                    |

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| <b>FIRST OPPORTUNITY/EXAMINATION QUESTION PAPER</b> |                   |
| <b>EXAMINER(S)</b>                                  | Dr Peter Bille    |
| <b>MODERATOR:</b>                                   | Dr Jonathan Kamwi |

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| <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 MATERIALS**

1. Examination question paper
2. Answering book

**THIS QUESTION PAPER CONSISTS OF 1 PAGE (Excluding this front page)**

1. Food is generally processed before consumption. Discuss the reasons for this and provide factors that influence the choice of heat treatment. [10]
2. Before food is processed it has to be prepared for it. Explain how this is done and provide the reasons for this. [10]
3. Fermentation is one of the methods used to process and preserve food. List the factors that influence food fermentation and provide examples of fermented foods. [10]
4. Pasteurization and Sterilization of liquid products such as milk are the methods of food processing. State what each abbreviation stands for and provide the temperatures and times for the following methods: LTLT, HTST & UHT. [10]
5. Processed foods are usually packed and labelled before distribution. List the groups of packaging materials that you know with examples and provide the reasons for packaging and information listed on the labels. [10]
6. Imbalanced food can cause a lot of nutritional disorders such as Marasmus, Kwashiorkor, Obesity and Rickets etc. Discuss the causes of these disorders and explain how you would reduce them. [10]
7. Discuss how you would process flavored Yoghurt using industrial method, mentioning the ingredients used, quantities needed and the names of the starter cultures used. [10]
8. Traditional sour milk (Omaere) is usually very watery and sour due to some reasons. Explain these reasons and discuss how you would improve on it using the modern methods. [10]
9. Food additives are usually added to processed foods for some reasons. List the additives that you know, provide reasons for adding and explain the consumers concerns. [10]
10. Calculate the Body Mass Index (BMI) of John whose Weight 95 Kg and Height of 1.8 Meter. State his health condition and provide advice for improvement. [10]

**END OF EXAM**