



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

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

**DEPARTMENT OF AGRICULTURAL SCIENCE AND AGRIBUSINESS**

<b>QUALIFICATIONS:</b> BACHELOR OF SCIENCE IN AGRICULTURE	
<b>QUALIFICATIONS CODE:</b> 07BAGA	<b>LEVEL:</b> 7
<b>COURSE CODE:</b> IBI511S	<b>COURSE NAME:</b> INTRODUCTION TO GENERAL BIOLOGY
<b>DATE:</b> JUNE 2024	<b>PAPER:</b> 1
<b>DURATION:</b> 3 HOURS	<b>MARKS:</b> 100

<b>FIRST OPPORTUNITY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER:</b>	MS. PAULINA NDINELAGO NAUPU
<b>MODERATOR:</b>	MRS. LOUISE THERON

<b>INSTRUCTIONS</b>
<ol style="list-style-type: none"><li>1. Read all instructions.</li><li>2. There are two sections in this paper.</li><li>3. Answer all questions in both Section A and B.</li><li>4. Please write neatly and legibly.</li><li>5. Do not use the left side margin of the exam paper. This must be allowed for the examiner.</li><li>6. No books, notes and other additional aids are allowed.</li></ol>

**PERMISSIBLE MATERIALS**

1. Examination Question paper
2. Examination Answer booklet

**THIS QUESTION PAPER CONSISTS OF 2 PAGES  
(Excluding This Front Page)**

**SECTION A: SHORT QUESTIONS****[60 MARKS]****QUESTION 1**

Define the following terms

- |     |                                       |     |
|-----|---------------------------------------|-----|
| 1.1 | Homeostasis                           | {2} |
| 1.2 | Genetic variation                     | {2} |
| 1.3 | Phylogeny                             | {2} |
| 1.4 | The Linnaean system of classification | {2} |
| 1.5 | Alternation of generations            | {2} |

**[10]****QUESTION 2**

- |     |  |     |
|-----|--|-----|
| 2.1 | What are the five universally recognized facts that serve as the foundation for most biological studies? | {5} |
| 2.2 | Mention the seven fundamental functions necessary for something to be classified as an organism?         | {7} |

**[12]****QUESTION 3**

- |     |  |     |
|-----|--|-----|
| 3.1 | Describe the four main factors "The Evil Quartet" contributing to the rapid extinction of species. | {8} |
| 3.2 | Describe the vascular system of plants in full   | {4} |
| 3.3 | Mention three types of primary meristems   | {3} |

**[15]****QUESTION 4**

- |     |  |     |
|-----|--|-----|
| 4.1 | Mention the five functions of the cell                               | {5} |
| 4.2 | List the two body shapes that organisms in phylum cnidarian can have | {2} |
| 4.3 | Differentiate between cuticle and stomata                            | {4} |

**[11]****QUESTION 5**

- |     |  |     |
|-----|--|-----|
| 5.1 | Mention and explain the three terms used to describe the position of plants' ovary | {4} |
| 5.1 | Mention the four main regions of the root tip and their functions                  | {8} |

[12]

**SECTION B:**

**[40 MARKS]**

**QUESTION 1**

Name and discuss the four phases of meiosis I {8}

**QUESTION 2**

Compare and contrast shoots and roots of plants {6}

**QUESTION 3**

Fully discuss auxins as a plant growth factor {12}

**QUESTION 4**

What are the seven classes of phylum chordata {7}

**QUESTION 5**

What are the seven types of ecology {7}

**Total Marks: 100**

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**END OF EXAMINATION MEMORANDUM**