



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF HEALTH, NATURAL RESOURCES AND APPLIED SCIENCES

Department of Agricultural Science and Agribusiness

QUALIFICATIONS: BACHELOR OF SCIENCE IN AGRICULTURE	
QUALIFICATIONS CODE: 07BAGA	LEVEL: 7
COURSE CODE: IBI511S	COURSE NAME: INTRODUCTION TO GENERAL BIOLOGY
DATE: JULY 2024	SESSION: JULY
DURATION: 3 HOURS	MARKS: 100

SECOND OPPORTUNITY/ SUPPLEMENTARY EXAMINATION QUESTION PAPER	
EXAMINER:	MS. PAULINA NDINELAGO NAUPU
MODERATOR:	MRS. LOUISE THERON

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

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 | Crossing over | {2} | |
| 1.2 | Pollination | {2} | |
| 1.3 | Evolution | {2} | |
| 1.4 | Cross-pollination | {2} | |
| 1.5 | Mitochondrion | {2} | |
| 1.6 | Species | {2} | |
| | | | [12] |

QUESTION 2

- | | | | |
|-----|--|-----|-------------|
| 2.1 | Describe the phylum Nematoda | {6} | |
| 2.2 | Distinguish between tracheophytes and bryophytes | {6} | |
| | | | [12] |

QUESTION 3

- | | | | |
|-----|---|-----|-------------|
| 3.1 | List the six major classes of plant hormones | {6} | |
| 3.2 | Classify seed-producing plants into two distinct groups | {2} | |
| 3.3 | Compare and contrast monocots and dicots | {8} | |
| | | | [16] |

QUESTION 4

- | | | | |
|-----|--|-----|-------------|
| 4.1 | Name the three primary meristems and the corresponding primary tissues they produce | {6} | |
| 4.1 | The epidermis is the outmost layer of cells in plant leaves, mention 3 structures of the epidermis and their functions | {6} | |
| | | | [12] |

QUESTION 5

- | | | | |
|-----|---|-----|--|
| 5.1 | The arrangement of the ovary and the attachment of the ovules within the ovary, known as placentation, can be classified into three types based on their position and orientation. Mention and explain the three types of this arrangement. | {6} | |
|-----|---|-----|--|

5.2 What are the two functions of Endoplasmic reticulum {2}

[8]

SECTION B: LONG QUESTIONS

[40 MARKS]

QUESTION 1

Fully discuss the gametophyte phase that occurs in the alternation of generations' life cycles in plants {7}

QUESTION 2

Fully distinguish between prokaryotes and Eukaryotes. {13}

QUESTION 3

Name and discuss the four phases of mitosis {10}

QUESTION 4

There are five problems plants have to overcome when adapting to land. Name them and explain how plants overcame them. {10}

Total Marks: 100

END OF EXAMINATION MEMORANDUM