



## UNIVERSITY EXAMINATIONS

**SECOND SEMESTER 2023/2024 ACADEMIC YEAR**

**FIRST YEAR EXAMINATION FOR THE DEGREES OF  
BACHELOR OF SCIENCE (AGED), BACHELOR OF  
EDUCATION (SCIENCE) AND BACHELOR OF SCIENCE  
(GENERAL)**

**BOTA 121: PLANT ANATOMY AND MORPHOLOGY**

***STREAM: R***

***TIME: 2 HRS***

***DAY: WEDNESDAY[11.30A.M – 1.30P.M] DATE: 17/04/2024***

**THIS QUESTION PAPER CONSISTS OF THREE (3) PAGES**

**PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.**

**INSTRUCTIONS: Answer All Questions in Section A and TWO from Section B.**

**SECTION A : (40 MARKS). ANSWER ALL QUESTIONS IN THIS SECTION**

### QUESTION ONE

Differentiate between the following; (6 Marks)

- Stipule and petiole
- Dermal and ground tissue
- Monocot and Dicot leaf venation

### QUESTION TWO

With the aid of diagrams only, describe the following; (8 Marks)

- Caudate and acute leaf apices
- Decurrent and sessile leaves
- Creeping and erect stems
- Runner and a rhizome

### QUESTION THREE

Compare and contrast bryophytes and thallophytes (4 Marks)

### QUESTION FOUR

Outline any FIVE types of roots. (5 Marks)

### QUESTION FIVE

Write short notes on stem modification (5 Marks)

### QUESTION SIX

State THREE functions of the epidermis (3 Marks)

### QUESTION SEVEN

- Define the term aestivation. (1 Mark)
- With use of diagrams, describe any FOUR types of aestivations. (8 Marks)

**SECTION B: 30 MARKS**

**QUESTION EIGHT**

Compare and contrast different types of placentation found in flowering plants and their functional adaptations. (15 Marks)

**QUESTION NINE**

With the aid of well-labelled diagrams, discuss racemose inflorescence. (15 Marks)

**QUESTION TEN**

Hydrophytes are capable of surviving unique environmental conditions. Discuss. (15 Marks)

