



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

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

**SCHOOL OF AGRICULTURE AND NATURAL RESOURCE SCIENCES**

**DEPARTMENT OF NATURAL RESOURCES SCIENCES**

<b>QUALIFICATION: BACHELOR OF NATURAL RESOURCES MANAGEMENT</b>	
<b>QUALIFICATION CODE: 07BNRS</b>	<b>LEVEL: 7</b>
<b>COURSE CODE: PTS620S</b>	<b>COURSE NAME: PLANT STUDIES 1</b>
<b>DATE: NOVEMBER 2024</b>	
<b>DURATION: 2 HOURS</b>	<b>MARKS: 100</b>

<b>FIRST OPPORTUNITY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER(S)</b>	Prof. Jonathan M. Kamwi
<b>MODERATOR:</b>	Mrs. Louise Theron

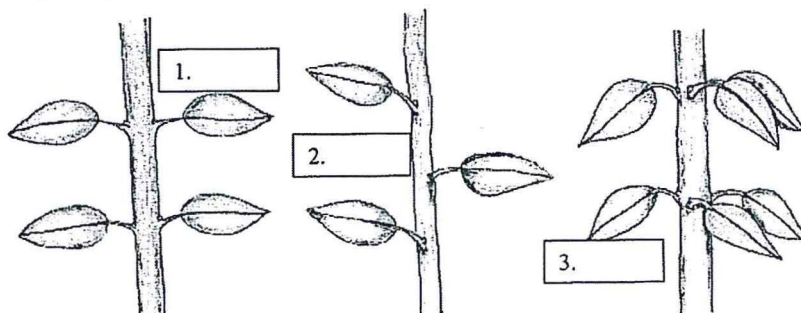
<b>INSTRUCTIONS</b>
1. Answer ALL the questions. 2. Write clearly and neatly. 3. Number the answers clearly.

**PERMISSIBLE MATERIALS**

1. Examination question paper
2. Answering book
3. Calculator and Ruler

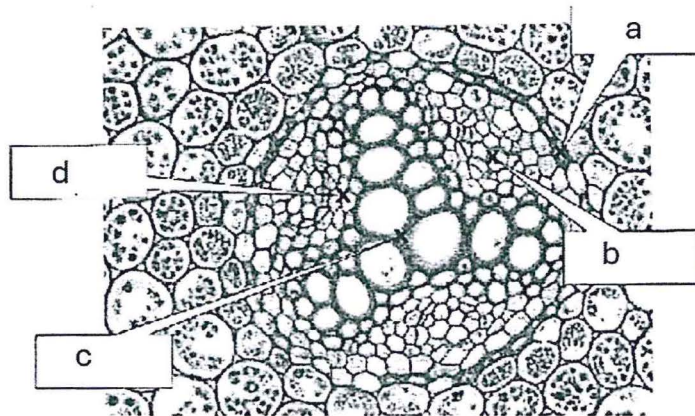
**THIS QUESTION PAPER CONSISTS OF 2 PAGES** (Excluding this front page)

1. Mention the three endemic species of Bryophytes in Namibia (Scientific names). [6]
2. Provide the lifecycle of the liverwort in words. [15]
3. Provide the lifecycle of the Pteridophyta in words. [15]
4. Provide any 4 characteristics of the primitive angiosperms. [4]
5. Write brief and critical notes about *Faidherbia albida*. [4]
6. What is a perianth and which two structures constitutes it? [3]
7. What is a hemi-parasite? [2]
8. What is the difference between a complete and incomplete flower? [2]
9. Describe the three main floral inflorescences found in grasses and provide an example of a grass species representing each type. [6]
10. Name and discuss the three layers that make up the pericarp of fruits? [6]
11. Discuss the four different types of dormancies that are associated with seeds. [8]
12. Differentiate between heart wood and sap wood? Which of the two is more durable? Why? [6]
13. Which is the correct order of leaf arrangement (phyllotaxy) adjectives from left (1) to right (3)? [2]

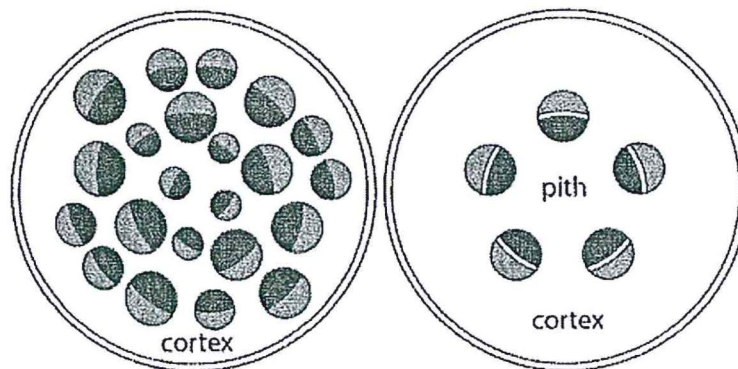


- a. Alternate, opposite, whorled
- b. Opposite, whorled, alternate
- c. Alternate, whorled, opposite
- d. Opposite, alternate, whorled
- e. None of the above

14. Provide the labels using this set of possible terms. [4]  
 a. Procambium, b. phloem, c. xylem, d. endodermis, e. epidermis



15. The pictures below depict..... [2]



- A. a root cross-section from a dicot (left) and monocot (right)  
 B. a root cross-section from a monocot (left) and dicot (right)  
 C. a stem cross-section from a dicot (left) and monocot (right)  
 D. a stem cross-section from a monocot (left) and dicot (right)  
 E. a leaf cross-section from a monocot (left) and dicot (right)
16. What is asexual reproduction and what are some advantages and disadvantages of asexual reproduction? [5]
17. Discuss one important difference between the anatomy of roots and the anatomy of leaves. [4]
18. Name the dominant families in the Gariep Centre of endemism. [2]
19. Why are botanical hotspots important in terms of conservation? [4]

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