



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

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

**DEPARTMENT OF AGRICULTURE AND 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 2022</b>	
<b>DURATION: 2 HOURS</b>	<b>MARKS: 100</b>

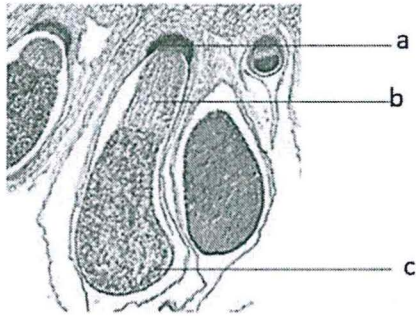
<b>FIRST OPPORTUNITY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER(S)</b>	Dr. Jonathan M. Kamwi
<b>MODERATOR:</b>	Mrs. Louise Theron

<b>INSTRUCTIONS</b>
1. Answer all questions.

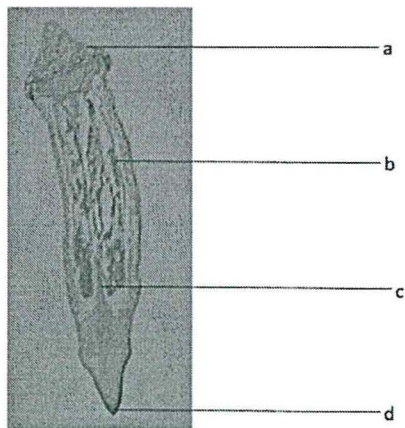
**THIS MARKING SCHEME CONSISTS OF 2 PAGES** (Excluding this front page)

1. What are the two dominant families in the “Gariiep Centre Endemism”? [2]

2. Provide the title of the figure below and label a-c. [4]



3. Provide the title of the figure below and label a-d. [5]



4. What is the function of a micropyle? [2]

5. Name the only species in Namibia from the Equisetophyta phylum. [2]

6. Describe the unisexual cones found on Conifer/ Pine trees. [4]

7. In what ways does the upper epidermis of a leaf differ from the lower epidermis? How are these structural differences adaptive? [4]

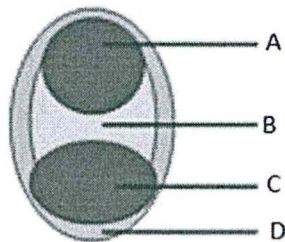
8. Name the two alien invasive species in the Zambezi region. [4]

9. How is the transport of substances carried out across bryophyte tissues? How is this feature related to the general size of these plants? [4]

10. In general, where is the sporophyte located in relation to the gametophyte in bryophytes? How does the sporophyte obtain nutrients? [2]

11. Why can bryophytes be considered the “amphibians of the plant world”? [2]

12. How does vegetative reproduction occur in bryophytes? [4]
13. What is a rhizome? Give its function. [3]
14. What are the angiosperm advances over gymnosperms? [6]
15. How did the primitive angiosperms look like? [9]
16. Name the endemic grass species in the "Kaokoveld centre of endemism". [2]
17. *Faidherbia albida* is a reverse morphology species. What does that mean? [2]
18. Provide the title of the figure below and label a-d. [5]



19. Do epidermal cells of leaves have a cuticle? Explain your answer. [2]
20. Compare between the cross section of dicot and monocot stems using diagrams. [10]
21. Describe the unisexual cones found on Conifer/ Pine trees. [6]
22. What are the differences (give at least one difference) between the following: - [6]
  - 9.1 Legume and a capsule
  - 9.2 Drupe and a berry
  - 9.3 A nut and an achene
23. What is the function of meristematic tissues? [2]
24. In what ways does the upper epidermis of a leaf differ from the lower epidermis? How are these structural differences adaptive? [4]
25. Distinguish between the pairs of the following terms: [4]
  - a. Actinomorphic flower; zygomorphic flower
  - b. Epigynous flower; hypogynous flower

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