



**PAMIBIA UNIVERSITY**  
OF SCIENCE AND TECHNOLOGY

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

**DEPARTMENT OF NATURAL RESOURCES SCIENCES**

<b>QUALIFICATION: BACHELOR OF NATURAL RESOURCE MANAGEMENT</b>	
<b>QUALIFICATION CODE: 07BNRS</b>	<b>LEVEL: 7</b>
<b>COURSE CODE: PTS710S</b>	<b>COURSE NAME: PLANT STUDIES 2</b>
<b>SESSION: JUNE 2025</b>	<b>PAPER: THEORY (PAPER 1)</b>
<b>DURATION: 2 HOURS</b>	<b>MARKS: 100</b>

<b>FIRST OPPORTUNITY EXAMINATION QUESTION PAPER</b>	
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<b>INSTRUCTIONS</b>
1. Answer ALL the questions. 2. Read all the questions carefully before answering. 3. Number the answers clearly

**THIS QUESTION PAPER CONSISTS OF 3 PAGES (Including this front page)**

1. Mention the 3 family characteristics of Malvaceae *sensu lato*? [3]
2. Mention the 2 subspecies of *Combretum apiculatum*. [4]  
Mention the 2 subspecies of *Acacia tortilis*. [4]
3. Mention the 2 poisonous aliens from Euphorbiaceae. [2]
4. Gynophore is a primitive diagnostic characteristic for the Capparaceae family. Explain what a gynophore is and why it is referred to as a primitive character. [2]
5. Both Combretaceae & Mimosoidae have clusters of small flowers with reduced petals and many stamens. How do the flowers of these two taxa differ? [4]
6. How would you recognize a member of the Fabaceae without its pods? [4]
7. You can tell which subfamily of Fabaceae a plant belongs to by looking at its pods. Discuss this statement. [6]
8. There is a member of the Fabaceae family with diagnostic pods which we studied in class. Which species is this, and how do the pods look like? [2]
9. The complex fruit has evolved into a very uncommon structure in the Moraceae family and has a distinctive relationship with its pollinators. Describe this assertion. [10]
10. The best explanation for the evolution of the carpel is still Goethe's "foliar theory of the carpel"; describe this theory in more detail. [5]
11. Describe *Terminalia prunioides* in terms of its leaves, general growth form and habit. [6]
12. Angiosperms have sophisticated pollination syndromes, which is one advantage they have over gymnosperms. Give examples and explain what this means. [4]
13. This is a jumble of Fabaceae subfamilies. Put the following species in the correct subfamily. Write down the numbers in column A and the corresponding letters in column B. note: Several species may belong to the same subfamily. [18]

COLUMN A - SUBFAMILY	COLUMN B - SPECIES
(1) Mimosoideae	A. <i>Pterocarpus angolensis</i>
(2) Caesalpinioideae	B. <i>Philenoptera violacea</i>
(3) Papilionoideae	C. <i>Mundulea sericea</i>
	D. <i>Guibourtia coleosperma</i>
	E. <i>Erythrina decora</i>
	F. <i>Abrus precatorius</i>
	G. <i>Colophospermum mopane</i>
	H. <i>Peltophorum africanum</i>
	H. <i>Baphia massaiensis</i>

	<i>J. Baikiaea plurijuga</i>
	<i>K. Burkea africana</i>
	<i>L. Elephantorrhiza suffruticosa</i>
	<i>M. Albizia anthelmintica</i>
	<i>N. Dichrostachys cinerea</i>
	<i>O. Faidherbia albida</i>
	<i>P. Acacia reficiens</i>
	<i>Q. Acacia luederitzii</i>
	<i>R. Erythrophleum africanum</i>

14. What was Darwin's contribution in plant classification during the 19<sup>th</sup> century? [6]
15. Those who have never studied plants often mistakenly refer to the flower of a particular plant when in fact they mean the entire inflorescence. Please explain this statement by explaining the difference between flowers and inflorescences. [4]
16. Most members of Ebenaceae have persistent calyxes. Discuss this description and name other two genera in this family which are found in Namibia. [4]
17. Describe the characteristics of a suffrutex plant. [3]
18. Identify and describe any three problems the industry for Indigenous natural plant products is facing. [9]