



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF HEALTH, NATURAL RESOURCES AND APPLIED SCIENCES

DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES SCIENCES

QUALIFICATION: BACHELOR OF NATURAL RESOURCES MANAGEMENT (NATURE CONSERVATION)	
QUALIFICATION CODE: 08BNRS	LEVEL: 8
COURSE CODE: FMG821S	COURSE NAME: Forest Management
DATE: NOVEMBER 2022	
DURATION: 2 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	Dr. Jonathan M. Kamwi
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INSTRUCTIONS
1. Answer all questions.

THIS MARKING SCHEME CONSISTS OF 1 PAGE (Excluding this front page)

1. What is forest increment? Discuss different types of increments. Discuss the graphical relationship between current annual increment and mean annual increment. [15]
2. Define forest sampling. Give advantages of sampling. Discuss different types of non-random sampling methods used in forestry. [15]
3. Sustainability is a defining construct with silviculture. Any manipulation of a forest must result in stand conditions that maintains site/stand productivity. What do we do in silviculture to maintain sustainable forest ecosystems? [10]
4. What is forest regeneration? Write in brief about natural and artificial regeneration of Forests. [10]
5. We examined reverse J-shape diameter distributions and their use in uneven-aged silviculture. How does selection system silviculture refashion stands to fit this structure? What are the key ecological underpinnings that cause this structure to be sustainable (i.e., reproducible through time). [10]
6. What are the most critical, negative impacts of logging on a forest site, and how do we minimize those impacts? [10]
7. Various procedures are available for estimating the merchantable volume of a sample plot of *Pterocarpus angolensis* in northern Namibia. List these procedures and the information needed to apply them. [10]
8. In forest inventory, various factors influence tree and stand variables and how they are measured. List as many of these factors as possible and discuss any three of them in relation to inventory of the *Pterocarpus angolensis* in northern Namibia. [10]
9. Discuss the types of human-caused forest disturbances with examples. [10]