



FACULTY	AGRICULTURE, ENGINEERING AND NATURAL SCIENCES		
DEPARTMENT	ENVIRONMENTAL SCIENCE		
SUBJECT	BIOSYSTEMATICS 1		
SUBJECT CODE	EBL3721		
DATE	JULY 2022		
DURATION	2 Hours	MARKS	90

SUPPLEMENTARY/SPECIAL EXAMINATION

Examiner: Prof. E.G. Kwembeya (University of Namibia)

Moderator: Prof. I. Mapaure (University of Namibia)

This Question Paper consists of TWO pages including this front page

Instructions

Answer ALL Questions in Section A

Answer ONE Question in Section B

Read questions carefully and answer accordingly

Section A carries 60 marks, and Section B carries 30 marks

UNIVERSITY OF NAMIBIA EXAMINATIONS

Section A: Answer ALL questions from this section (60 marks)

QUESTION 1

Distinguish the following taxonomic literature: flora, monograph, manual, revision, conspectus and synopsis.

(6 marks)

QUESTION 2

Briefly discuss the different methods of pest control in herbaria including Integrated Pest Management approach.

(12 marks)

QUESTION 3

(a) Distinguish the following root modifications: taproot, adventitious roots, lateral root, haustoria, prop roots, pneumatophores and buttress roots.

(7 marks)

(b) Explain four functions of plant specimens in a Herbarium.

(4 marks)

QUESTION 3

(a) Distinguish between a voucher specimen and a nomenclatural "type" specimen.

(2 marks)

(b) Explain the two basic reasons for changing a scientific name.

(4 marks)

(c) Explain the four basic types of nomenclatural activities that can result in a name change.

(8 marks)

QUESTION 4

(a) Briefly discuss the precautions which should be made in using a dichotomous key.

(7 marks)

(b) Review the guidelines for the construction of dichotomous keys.

(10 marks)

Section B: Answer ONE question from section B (30 marks)

QUESTION 1

Discuss the benefits, opportunities and challenges of the discipline of Biosystematics in the 21st century.

(30 marks)

QUESTION 2

Discuss the roles of a herbarium. In your essay evaluate the advantages of a virtual herbarium over a physical herbarium in the modern world.

(30 marks)

.....**End of Examination**.....