



**THE OPEN UNIVERSITY OF SRI LANKA  
 B.Sc. / B.Ed. DEGREE PROGRAMME - LEVEL 04  
 BTU 2103 / BTE 4103 / BTI 4103  
 SYSTEMATICS OF PLANTS AND ANIMALS  
 OPEN BOOK TEST - 2007/2008**

**DURATION – ONE (01) HOUR**

Reg. No. ....

Date : 14 . 09. 2007

Time 4.00 – 5.00 p.m.

**Answer All Questions.  
 Questions should be answered on the question paper itself.**

**PART A – (30 minutes)**

01. Comment briefly on the following statements.

a. Systematics is unique in being a science without any data of its own.

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b. Man, from time immemorial, has been a practical plant taxonomist.

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c. Linnaeus is considered as the "Father of Taxonomy".

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d. Species is the keystone of the nomenclatural system.

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02. Indicate **02 (two)** ways as to how you would incorporate ethics in the following activities when carrying out research in plant taxonomy.

a. Collecting specimens in the field –

i. ....  
ii. ....

b. Exchanging specimens with a colleague –

i. ....  
ii. ....

c. Borrowing specimens from the National Herbarium –

i. ....  
ii. ....

d. Maintaining a plant collection -

i. ....  
ii. ....

e. Writing a research paper to be published

i. ....  
ii. ....



03. What is meant by the following?

a. Binomial system of nomenclature

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b. Operational Taxonomic Unit

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c. Taxonomic synonyms of plants

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d. Principle of priority

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**PART B - (30 minutes)**

01. Fill in the blanks in the following paragraph with appropriate words.

Systematics is the scientific study of the kinds of organisms, their diversity and all relationships that exist among them. This unique subject depends on other biological fields such as -----, -----, -----, -----, -----etc. Systematists, synthesize the data obtained from other fields of sciences to produce ----- systems that would bring out ----- relationships between organisms. Then the out come of this could be stored in -----, ----- and ----- for further reference.

02. a. What is meant by **downward classification of animals**?

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b. 'Classification schemes of organisms change from time to time'. Explain briefly.

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c. Outline the procedure adopted in describing a new animal species.

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03. a. Name the **three (03)** main types of species concepts.

i. ....

ii. ....

iii. ....

b. Which of the above mentioned concepts is most widely used?

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c. Give reasons for your answer for **part (b)** above.

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04. a. What are **tautonyms**?

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b. Give an example for a tautonym.

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c. Are the tautonyms legitimate or illegitimate in zoological nomenclature?

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d. When was the first International Code of Zoological Nomenclature published?

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