

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 - 2008/2009



DURATION – ONE (01) HOUR

Date : 19 Sept. 2008

Reg. No.

Time : 4-00 p.m - 5-00 p.m.

Answer All Questions.

Questions should be answered on the question paper itself.

PART A (30 minutes)



01. Give the terms used to denote the following in Systematics.

- i. The process by which two isolated populations evolve in different directions -
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- ii. Classification of plants based on one or a few selected characters-
- iii. The oldest legitimate name of a plant -
- iv. A valid name used to denote two different plant species-
- v. Transformation of one species to another -.....
- vi. The smallest population that is permanently distinct and distinguishable from all others -
- vii. Evolutionary history of a group of organisms -
- viii. Variations shown by the phenotype in response to environmental fluctuations-
.....
- ix. A group of species with a set of common characters and descended from a common ancestor
- x. The lowest rank that is selected for numerical taxonomic studies -
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02. Explain the following in terms of plant nomenclature.

a. *Hygrophila salicifolia* (Vahl) Nees in Wall.

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b. *Euonymus indicus* Heyne ex Wall.

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03. State **two (02)** major contributions made by the famous botanist Carolus Linnaeus to the development of Plant systematics.

i.....

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ii

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04. Give the main reasons for the following.

a. Plant and animal classification systems are always subjected to change.

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- b. Giving an exact definition for the taxon 'species' is impossible.

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- c. Systematics is a unique subject when compared to other sciences.

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05. Briefly outline the following?

- a. Undesirable features of a taxonomic paper

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- b. Usage of relevant catalogues in plant identification

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Part B (Duration 30 Minutes)



6. Write **three differences** between two terms used in systematic studies.

i Valid publication and effective publication

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ii. Morphological species concept and Biological species concept

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iii. Chronology of names and chronology of bibliographic references.

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iv. Priori weighting and Posteriori weighting

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v. Downward classification and upward classification

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