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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 - 2010/2011
 DURATION - ONE (01) HOUR

Reg. No.

Date : 17th September 2010

Time: 4.00 – 5.00 pm

Answer All Questions.

Questions should be answered on the question paper itself.

PART A (30 minutes)

01. Systematics depends on other sciences for its existence. Why?

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02. List five (05) main objectives of plant taxonomy.

i.....
 ii.....
 iii.....
 iv.....
 v.....

03. Explain the citation: *Ipomoea macrantha* Roem. & Schultes, Syst. Veg. 4: 251. 1819

.....

04. Why do classification systems of plants and animals change very often?

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05. What are the **five (05)** major steps you would follow in Numerical Taxonomy ?

i.....

ii.....

iii.....

iv.....

v.....

06. What is meant by the following?

i. Plant speciation

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ii. Correct name of a plant species

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iii. Artificial classification of plants

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iv. International code of botanical nomenclature

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v. Phenotypic variability of plants

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07. Give **two (02)** major ethics in collecting plant specimens in the field.

i.....

ii.....

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PART B (30 minutes)

01. Distinguish between the following.

i. Sympatric speciation and Allopatric speciation

Sympatric speciation

Allopatric speciation

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ii. Synonyms and homonyms

Synonyms

Homonyms

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iii. Valid publication and effective publication

Valid publication

Effective publication

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iv. Phyletic speciation and True speciation

Phyletic speciation

True speciation

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02. Give **four (04)** major reasons for developing different concepts of species.

- i.....
- ii.....
- iii.....
- iv.....

03. Briefly explain how hybridization results in new species.

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04. Describe briefly the different author citations used in animal nomenclature.

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05. Give **three (03)** drawbacks of using chemical evidence in systematic studies.

- i.....
- ii.....
- iii.....