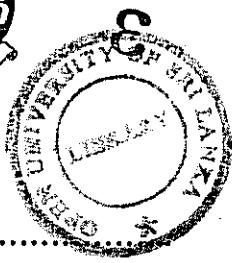


THE OPEN UNIVERSITY OF SRI LANKA
B.Sc. / B.Ed. DEGREE PROGRAMME - LEVEL 04
BTU 2103 / BTE 4103 / BTI 4103
SYSTEMATICS OF PLANTS AND ANIMALS



ASSESSMENT TEST (NO BOOK TEST) - 2007/2008

DURATION – ONE (01) HOUR

Reg. No.

Date : 27. 10. 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. a. Karyology has gained increasing importance in systematics of plants and animals. Give the main reason.

.....
.....

b. Indicate **one (01)** disadvantage in encountering each of the following evidence in taxonomic studies.

i. Physiological evidence

.....

ii. Anatomical evidence

.....

iii. Chemical evidence

.....

c. Indicate **two (02)** advantages of using morphological features as taxonomic evidence?

i.

ii.

d. Give **two (02)** characters of taxonomic value in pollen grain studies.

.....

.....

e. Differentiate between a **good character** and a **key character** in plant identification.

Good character

Key character

.....
.....
.....
.....
.....

02. Give **two (02)** main objectives of the International Code of Botanical Nomenclature.

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

03. What is meant by the following?

a. A classification system

.....
.....

b. Speciation

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.....

c. Character state

.....
.....

d. Phenotypic variability

.....
.....

e. Correct name of a plant species

.....
.....

PART B - (30minutes)

04. a. Who put forward the geographic theory of speciation?

.....

- b. What are the **four (04)** steps involved in speciation according to geographic theory?

i.....

ii.....

iii.....

iv.....

- c. What are the three possible outcomes of the step (iv) mentioned in part (b) above?

i.....

ii.....

iii.....

- d. Explain briefly what happens in each of the three situations mentioned in part (c) above.

i.....

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iii.....
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.....

05. List out the steps involved in identification of an unknown animal/plant specimen.

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.....

06. What are the **three (03)** sets of data on which taxonomists rely chiefly to construct a discrimination grid?

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

07. Given below are the terms used in the discrimination grid. Briefly describe them.

- a. Sibling species

.....
.....

b. Same sub species

.....
.....

c. Different sub species

.....
.....

d. Individual variants of the same population.

.....
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