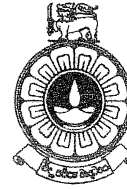


THE OPEN UNIVERSITY OF SRI LANKA
B.Sc./ B.Ed. DEGREE PROGRAMME- 2013/2014
LEVEL 04 – BOU 2102/ BOE 4102
SYSTEMATICS OF HIGHER PLANTS AND ANIMALS
OPEN BOOK TEST
DURATION - ONE (01) HOUR



Reg. No:.....

Date : 1st March 2014

Time: 10.30-11.30 am.

Answer all Questions in PART A within the given space.

PART A (Botany) (30 Minutes)

(01) Underline the correct answer

(A) Which statement is incorrect ?

- a. Systematics is a dynamic subject
- b. Taxonomy is only a part of systematics
- c. Biosystematics gives the same meaning of Taxonomy
- d. Systematics is a subject with a never ending synthesis

(B) Who is not being considered as a herbalist?

- a. John Gerard
- b. John Ray
- c. Leonhard Fuchs
- d. Otto Brunfels

(C). Basic taxonomy unit is

- a. Kingdom
- b. Genus
- c. Order
- d. Species

(D). Binomial nomenclature means writing the name of plant in two words which designate

- a. Genus and species
- b. Order and family
- c. Species and variety
- d. Family and genus

(E). What is the correct descending sequence of taxonomic categories?

- a. Class- order- division family- species
- b. Division-class -order- family- genus
- c. Genus-class- division- family- order
- d. Family-order-genus-division-class

- (F). Taxon is
- a genus
 - a species
 - a taxonomic unit
 - a taxonomic category of any rank
- (G) Nomenclatural codes involved in
- identification implications
 - naming implications
 - classification implications
 - in all of the above cases
- (H) A system of classification based on morphologically important all characters is termed as
- Artificial system
 - Natural system
 - Mechanical system
 - Phylogenetic system
- (I) The botanist who made a great contribution to the “Flora of Ceylon” without visiting Sri Lanka.
- Alexander Moon
 - Paul Hermann
 - Carolus Linnaeus
 - Henry Trimen
- (J) Division of the Angiosperms into monocotyledons and dicotyledons is first done by,
- Arthur Cronquist
 - Benthom and Hooker
 - Armen Takhtajan
 - Charles Bessy

(02.) Match each of the following taxonomic treatments (Books) with their respective authors. (Write down the corresponding letter of the book in front of the author).

<u>Author</u>	<u>Book</u>	
Carolus Linnaeus	De historia stirpium	A
Jean B. de Lamarck	Horti Academici Lugduno -Batavi Catalogu	B
A.P.de Candolle	Speciess Plantarum	C
Paul Hermann	Enumeratio Plantarum Zeylanica	D
Robert Wight	Flore Francoise	E
George H. H. Thwaites.....	Hand book to the Flora of Ceylon	F
Henry Trimen	Catalogue of Indiginous Plants Grown in Ceylon.	G
William Ferguson	Icones Plantarum Indium Orientalis	H
Leonhard Fuchs	Notes on Ceylon Ferns	I
Alexander Moon	Prodromus Systematis	J

(03) Give two reasons for each of the following.

a. Scientific names are always in Latin language.

i.

ii.

b. A Herbarium plays a major role in systematic exercises

i.

ii.

c. Phylogenetic classification systems are considered more helpful than mechanical classification systems in systematics

i.

ii.

d. Poisoning of plant materials before pressing is more effective than poisoning after pressing.

i.

ii.

e. Scientific name of an organism is more useful than its Vernacular name.

i.

ii.

(04) Write the differences between the following

a. Systematics

Taxonomy

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b. Subjective synonyms

Objective synonyms

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c. Legitimate name

Correct name

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d. Monothetic dichotomous keys

Polythetic dichotomous keys

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e. Botanic Garden

Herbarium

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SYSTEMATICS OF HIGHER PLANTS AND ANIMALS
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DURATION – 30 MINUTES



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Answer all questions in PART B. Answers should be written in the space provided.

PART B (Zoology)

Answer all questions

1. Describe the following terms as much as possible.

(i) *Rana limnocharis* wiegmann, 1835

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(10 marks)

(ii) *Anser albifrons* (Scopoli, 1769)

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(10 marks)

(iii) *Syzygium spathulata* Thw., Enum. Pl. Zeyl. 118.1859. C.P. 1920 (PDA)

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(10 marks)

2. (i) What is meant by Biological Classification?

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(15 marks)

(ii) Give 3 major importance of biological classification

(1).....
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(2).....
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.....

(3).....
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.....

(15 marks)

(ii) Name the two basic principles of classification

(1)
(2)

(10 marks)

3. Name and briefly explain the current methods of classification

(i)
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(ii)
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(iii)
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(30 marks)