

UNIVERSITY OF RUHUNA

BACHELOR OF SCIENCE GENERAL DEGREE LEVEL I (SEMESTER II)

EXAMINATION - NOVEMBER/DECEMBER 2016

Subject : Zoology

Course Unit : ZOO 1212 - Chordate Organization and Diversity

Time: 01½ hours

Index No :

Answer the **Part A** and **any two** questions from **Part B**.

Illegible handwriting would be penalized.

Question No.	Marks
Part A	1
	2
	3
	4
Part B	5
	6
	7
	8
Assessment	
Total	

Part A : Answer all. (40 minutes)

1. (i). State **two** adaptations shown by hag fishes for their protection.

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

(ii). What is 'labyrinth organ' that can be seen among some fishes?
Mention its function.

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

(iii). What is the functional unit of the lateral line system of fishes? Mention the function of the lateral line system.

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

(iv). Mention **two** advanced evolutionary significant features that can be seen in elasmobranch (shark) skull when compared to hag fish cranium (skull).

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

(10 marks)

2. (i). Mention **three** major changes that occurred during the evolution of the tetrapods.

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

(ii). Why do amphibians show digging & burrowing behavior? Give **three** reasons.

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

(iii). Mention **two** structural features that help amphibians for camouflage.

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

(iv). State **four** main threats on frogs & toads in Sri Lanka?

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

(10 marks)

3. (i). Mention **three** characteristics of Reptiles that distinguish them from Amphibians.

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

(ii). State **five** threats faced by turtles, visiting the coastal beaches of Sri Lanka?

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

(iii). "By the late Carboniferous period amniotes had separated into three major groups based on their skull type".

With reference to the above statement, complete the table given below.

	Skull type	Main characteristics of the skull	Examples for animal bearing the skull type
1		i. ii.	
2		i. ii.	
3		i. ii	

(iv). Write a brief account on "Worm lizards".

.....

.....

.....

.....

(10 marks)

4. (i). Write a brief account on the most ancient (archaic) bird whose fossils were discovered from lime stone deposits dating back to Jurassic era.

.....

.....

.....

.....

.....

(ii). (a). Mention the two methods by which bird colours are produced.

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

(b). List the functions of bird colouration.

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

(iii). Briefly explain how bird feathers are developed.

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

(iv). (a). With suitable examples, name the different types of flight seen among birds.

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

(b). Name & mention the main functions of wing muscles seen in birds.

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

(10 marks)

Part B : Answer **any two** questions only.

5. Discuss the multitude of morphological adaptations that can be seen among fishes living in different aquatic habitats based on their mode of life.

(25 minutes)

(20 marks)

6. "Amphibians have developed different adaptations/mechanisms to encounter threats from their predators". Justify this statement with suitable examples.

(25 minutes)

(20 marks)

7. Discuss the diversity of locomotion seen among modern reptiles.

(25 minutes)

(20 marks)

8. Give a brief account on the characteristic features seen in the bird skeleton to lead a successful air borne life.

(25 minutes)

(20 marks)

 **For the assessment**

(20 marks)

@@@@@@@@@@@@@@@@@@