

BOWEN UNIVERSITY, IWO
DEPARTMENT OF BIOLOGICAL SCIENCES
2012/2013 SECOND SEMESTER EXAMINATION

BLY 113: THE VERTEBRATE BODY

Answer ALL questions.

Time: 1hr 15mins

Name _____

Matric No: _____

Department _____

Programme _____

SECTION A

1. What is bimodal breathing? _____

_____ (2 Marks)
2. The three major respiratory organs in vertebrate animals are _____, _____ and _____ (3 Marks)
3. The three epidermal layers of a reptilian skin are known as _____ and _____ (3 Marks)
4. What is a pheromone? _____
_____ (2 Marks)
5. Mention any two advantages of ecdysis in reptiles. (2 Marks)
(i) _____
(ii) _____
6. The stomach of a bird is divided into two regions, namely _____ and _____ (2 Marks)
7. Mention any three functions of the stomach in the human digestive system. (3 Marks)
(i) _____
(ii) _____
(iii) _____
8. The three important glandular systems associated with the digestive tract of vertebrates are (3 Marks)
(i) _____
(ii) _____
(iii) _____

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9. List and give the specific locations of the different types of vertebrae in a vertebrate animal. (10 Marks)

Type of Vertebrate	Location in the body

Answer True or False

10. Birds are tetrapods True False
11. The muscular tissue makes up to one-third of the body mass of a vertebrate. True False
12. The lower appendages of a vertebrate are attached to the vertebral column by the pectoral girdle. True False (3 Marks)
13. The largest single organ of the vertebrate is the _____ (1 Mark)
14. Give one example of an involuntary muscle in the body of a vertebrate. _____ (1 Mark)

SECTION B

1. With one example each list five components of the blood plasma. (5 Marks)

Component	Example

2. List two granular leucocytes. (2 Marks)
(i) _____
(ii) _____
3. As mammalian erythrocytes age, they are removed from the blood by phagocytic cells of the _____ and _____. (3 Marks)
4. The valve between the left atrium and left ventricle is called _____. (1 Mark)

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5. List **seven** functions of the vertebrate circulatory system. (1 Mark)
- (i) _____
 - (ii) _____
 - (iii) _____
 - (iv) _____
 - (v) _____
 - (vi) _____
 - (vii) _____
6. Sperm maturation and storage take place in the _____. (1 Mark)
7. List the **three** accessory glands that open into the male reproductive channels of mammals. (3 Marks)
- (i) _____
 - (ii) _____
 - (iii) _____
8. List **four** secondary sexual organs of mammalian females. (4 Marks)
- (i) _____
 - (ii) _____
 - (iii) _____
 - (iv) _____
10. List **two** types of nephrons in the human kidney. (2 Marks)
- (i) _____
 - (ii) _____
11. Enumerate **five** processes of urine formation in humans. (5 Marks)
- (i) _____
 - (ii) _____
 - (iii) _____
 - (iv) _____
 - (v) _____
12. List the **two** groups of hormones produced by the adrenal cortex. (2 Marks)
- (i) _____
 - (ii) _____

Section A (35 Marks)	Section B (35 Marks)	Total score (70 Marks)