

**II/zoo (ii)**

**2014**

**( 2nd Semester )**

**ZOOLOGY**

**Paper : ZL-II**

**( Biology of Chordates and  
Comparative Anatomy )**

*Full Marks : 55*

*Time : 2 hours*

**( PART : B—DESCRIPTIVE )**

**( Marks : 35 )**

*The figures in the margin indicate full marks  
for the questions*

- 1. Classify protochordata up to sub-phyla  
and write the general characters of each  
sub-phylum. 1+6=7**

**Or**

**Write an account of the post-embryonic  
development in Amphioxus. 7**

2. Give an outline classification of Pisces up to orders. 7

Or

Write the general characters of the class Reptilia.

3. Write an account of principle and mode of flight in birds. 4+3=7

Or

Outline the classification of Mammals up to orders giving one example each. 7

4. Write an account on dermal derivatives of integument. 7

Or

Discuss briefly the evolutionary modification of heart.

5. Write an account on the structure and composition of bone. 7

Or

Write notes on the following :  $3\frac{1}{2}+3\frac{1}{2}=7$

(a) Vertebrae

(b) Cartilage

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( PART : A—OBJECTIVE )

( Marks : 20 )

*The figures in the margin indicate full marks for the questions*

**SECTION—A**

( Marks : 5 )

1. Put a Tick (✓) mark against the correct answer in the brackets provided : 1×5=5

(a) The living agnathans are placed under two orders, viz.

(i) Monorhina and Diplorhina ( )

(ii) Arthrodiriformes and Antiarchiformes ( )

(iii) Mixiniformes and Petromyzontiformes ( )

(iv) Petromyzontia and Mixinoidea ( )

( 2 )

(b) Biconcave and non-nucleated RBC is the characteristic feature of

- (i) aves ( )
- (ii) mammal ( )
- (iii) camel ( )
- (iv) crocodile ( )

(c) Limbless amphibians belong to the order

- (i) Gymnophiona ( )
- (ii) Anura ( )
- (iii) Opisthocoela ( )
- (iv) Caudata ( )

(d) Which of the following is known as the 'jack of all trades' of vertebrate?

- (i) Urinogenital system ( )
- (ii) Digestive system ( )
- (iii) Integumentary system ( )
- (iv) Respiratory system ( )

( 3 )

(e) Olecranon process is in connection with

(i) femur ( )

(ii) humerus ( )

(iii) ulna and radius ( )

(iv) tibia and fibula ( )

( 4 )

SECTION—B

( Marks : 15 )

2. Write on the following :

3×5=15

(a) Characteristic features of Protochordates

( 5 )

- (b) Palaeontological evidence to show that birds are reptilian descent

( 6 )

(c) Different types of fish scales



( 7 )

(d) Neoteny and paedogenesis with suitable example

( 0 )

(e) Dentition in mammals

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