

G-2/243/21

Roll No.....

**M.Sc. II Semester Examination, 2021**

**ZOOLOGY**

**Paper I**

(Comparative Anatomy of Vertebrates)

Time : 3 Hours ]

[Maximum Marks : 80

**Note :** *All questions are compulsory. Question Paper comprises of 3 sections. Section A is objective type/multiple choice questions with no internal choice. Section B is short answer type with internal choice. Section C is long answer type with internal choice.*

**SECTION 'A'**

**(Objective Type Questions)**

Choose the correct answer :

**1 × 8 = 8**

1. Which class of animal has skin with feathers, lays eggs with a hard shell, has a beak and maintains a constant body temperature.

- (a) Reptiles                      (b) Birds  
(c) Mammals                      (d) Amphibians

2. The only two monotremes in the world are the :

- (a) Platypus and Wallaby

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- (b) Platypus and Echidna  
(c) Kangaroo and Echidna  
(d) Kangaroo and Wallaby

3. Stomach in Rabbit is distinguished in to :

- (a) Cardiac and Pyloric region  
(b) Cardiac and fundus region  
(c) Cardia, fundus and Pyloric region  
(d) None of these

4. Oxyntic cells are found in :

- (a) Islets of Langerhans and secretes glucagon  
(b) Gastric epithelium and secretes mucus  
(c) Gastric glands and secretes HCl  
(d) Kidney and secretes renin

5. Which bone protects the brain :

- (a) Calcium                      (b) The cranium  
(c) The cerebrum                (d) The cerebellum

6. The hollow space in the middle of bone is filled with :

- (a) Air                              (b) Blood  
(c) Bone cells                      (d) Bone marrow

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7. Space which separates arachnoid mater and durameter is :

- (a) Epidural                      (b) Mediastinum  
(c) Subdural                      (d) Suburachnoid

8. The biggest sense organ of your body is your :

- (a) Nose                              (b) Lips  
(c) Skin                                (d) Eyes

**SECTION 'B'**

**6 × 4 = 24**

**(Short Answer Type Questions)**

**Note :** Answer the following questions in 250 words.

Unit I

1. Write the general characters of fishes.

Or

Write the general characters of Amphibia.

Unit II

2. Write notes on placoid scale.

Or

Write notes on function of blood.

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Unit III

3. Draw well labelled diagram of Respiratory system of Birds.

Or

Explain the respiration in fishes.

Unit IV

4. Write notes on Electroreception.

Or

Write notes on sense organ of taste.

**SECTION 'C'**

**12 × 4 = 48**

**(Long Answer Type Questions)**

**Note :** Answer the following questions in 500 words.

Unit I

1. Explain the classification of Mammalia.

Or

Classify upto order with characters and diagram of the following animal (any three) :

- (i) Dog fish,                      (ii) Frog,  
(iii) Cobra,                      (iv) Pigeon,  
(v) Rat.

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Unit II

2. Explain the evolution of aortic arches in vertebrates.

Or

Describe the digestive system of scoliodon and compare with Amphibians.

Unit III

3. Write down the difference between pectoral girdle of Amphibia and Reptelia.

Or

Explain the urinogenital system of Aves.

Unit IV

4. Describe the origin, distribution and function of cranial nerve of vertebrates.

Or

Compare the spinal chord of Amphibia and Reptelia.

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