

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)  
BSc DEGREE EXAMINATION DECEMBER 2024  
(Second Semester)  
Branch – ZOOLOGY

**CHORDATA**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

| Module No. | Question No. | Question                                                                                                                                                                        | K Level | CO  |
|------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----|
| 1          | 1            | Prochordates are also known as<br>a. Acraniates                      b. Invertebrates<br>c. Craniates                        d. Vertebrates                                     | K1      | CO1 |
|            | 2            | Chordates are classified into how many subphyla?<br>a. 2                      b. 3                      c. 4                      d. 5                                          | K2      | CO2 |
| 2          | 3            | Which of the following is a unique characteristic of fishes?<br>a. Four limbs                      b. Hair<br>c. Gills for respiration                      d. Feathers         | K1      | CO1 |
|            | 4            | The movement of fishes from one place to another is known as<br>a. Hibernation                      b. Aestivation<br>c. Migration                      d. Diapause             | K2      | CO2 |
| 3          | 5            | Amphibians undergo a process called<br>a. Complete metamorphosis.                      b. Metamorphosis<br>c. Incomplete metamorphosis                      d. No metamorphosis | K1      | CO1 |
|            | 6            | Rana tigrina is a common species of<br>a. Frog                      b. Toad<br>c. Salamander                      d. Caecilian                                                  | K2      | CO2 |
| 4          | 7            | The heart of a reptile is<br>a. Three-chambered                      b. Two-chambered<br>c. Four-chambered                      d. None of the above                            | K1      | CO1 |
|            | 8            | Sphenodon is found in<br>a. Australia                      b. North America<br>c. Africa                      d. New Zealand                                                    | K2      | CO2 |
| 5          | 9            | The beak of a bird is modified from<br>a. Teeth                      b. Claws<br>c. Jaws                      d. None of the above                                              | K1      | CO1 |
|            | 10           | Which of the following is a flightless bird?<br>a. Ostrich                      b. Kiwi<br>c. Penguin                      d. All of the above                                  | K2      | CO2 |

**SECTION - B (35 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

| Module No. | Question No. | Question                                                                                                     | K Level | CO  |
|------------|--------------|--------------------------------------------------------------------------------------------------------------|---------|-----|
| 1          | 11.a.        | Classify the phylum Chordata up to the class level and describe the important characteristics of each class. | K3      | CO3 |

Cont...

|   |       |                                                                                 |    |     |
|---|-------|---------------------------------------------------------------------------------|----|-----|
|   | (OR)  |                                                                                 |    |     |
|   | 11.b. | Develop a note on the general characteristic features of Protochordata.         |    |     |
| 2 | 12.a. | Examine the structure of the gill and mode of respiration in <i>Scoliodon</i> . | K4 | CO4 |
|   | (OR)  |                                                                                 |    |     |
|   | 12.b. | Analyze the various types of parental care exhibited by fish.                   |    |     |
| 3 | 13.a. | Classify the Amphibia up to the level of order with salient features.           | K4 | CO4 |
|   | (OR)  |                                                                                 |    |     |
|   | 13.b. | Analyze the structure and functions of skin in <i>Rana tigrina</i> .            |    |     |
| 4 | 14.a. | Distinguish between poisonous and non-poisonous snakes of south India.          | K4 | CO4 |
|   | (OR)  |                                                                                 |    |     |
|   | 14.b. | Analyze the evolutionary trends among extinct reptiles.                         |    |     |
| 5 | 15.a. | Evaluate the general characteristics of class Aves.                             | K5 | CO5 |
|   | (OR)  |                                                                                 |    |     |
|   | 15.b. | Assess the aquatic adaptations in mammals.                                      |    |     |

**SECTION -C (30 Marks)**

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

| Module No. | Question No. | Question                                                                                 | K Level | CO  |
|------------|--------------|------------------------------------------------------------------------------------------|---------|-----|
| 1          | 16           | Explain the retrogressive metamorphosis in Ascidian.                                     | K5      | CO5 |
| 2          | 17           | Distinguish the characteristics and morphological differences between Catla and Tilapia. | K4      | CO4 |
| 3          | 18           | Explain the nervous system of frog.                                                      | K5      | CO5 |
| 4          | 19           | Inspect the reproductive system of <i>Calotes versicolor</i> .                           | K4      | CO4 |
| 5          | 20           | Discuss the circulatory system of <i>Columba livia</i> .                                 | K6      | CO5 |

Z-Z-Z

END