

**B.Sc. Semester-IV Examination, 2022-23****ZOOLOGY [Honours]**

Course ID : 42611 Course Code : SH/ZOO/401/C-8

Course Title : Comparative Anatomy of Vertebrates

Time : 1 Hour 15 Minutes Full Marks : 25

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*1. Answer any **five** of the following questions:

1×5=5

- Mention two epidermal exoskeletal structures in birds other than feathers.
- What is baroreceptor?
- What is opisthocoelous vertebrae?
- State the function of Rete mirabile.
- Write the difference between connective and commissure.
- What is Craniostylic jaw suspension?
- Distinguish between reptile scale and fish scale.
- What is plastron?

2. Answer any **two** of the following questions:

5×2=10

- What is Ductus caroticus? State the functional and evolutionary significance of modification of aortic arches in mammal. 1+4=5
- Describe the holobranchian gill with suitable diagram. How the gills of Chondrichthyes differ from that of Osteichthyes? 3+2=5
- Describe the development of metanephric kidney in amniotes. 'Mesonephros still persists in adult amniotes'– Justify the statement. 3+2=5
- Differentiate between Thecodont and Pleurodont. What is brachydont condition? Classify the cheek teeth based on the cusp pattern. 1+1+3=5

3. Answer any **one** of the following questions:

10×1=10

- What is Foramen of Panizza? State briefly the trend of evolution of aortic arches in vertebrates. Describe with the suitable diagrams the changes of cardiac blood flow pattern in crocodile when it dives. 2+5+3=10

- b) Describe different kinds of epidermal glands on the basis of their mode of secretion with suitable examples. Describe sebaceous gland and sudoriferous glands with illustration. State the difference between horns of deer and antelope.

$$4+4+2=10$$

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