

2022

ZOOLOGY — HONOURS

Paper : CC-8

(Comparative Anatomy of Vertebrates)

Full Marks : 50

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

1. Answer **any five** questions :

2×5

- Distinguish between 'Ductus Arteriosus' and 'Ductus Caroticus'.
- What is branchiostegal membrane? Where is it found?
- Distinguish between 'Conus arteriosus' and 'Bulbus arteriosus'.
- What do you mean by opisthonephric kidney?
- Distinguish between a single circuit heart and a double circuit heart with suitable examples.
- What is craniostylic jaw suspension? Where is it found?
- Distinguish between Pallium and Neopallium.
- What is gyri and sulci?

2. Answer **any four** questions from the followings :

- Describe the structural peculiarities of Pronephros and Metanephros kidneys with proper diagrams. Define Wolffian duct and Mullerian duct. (3+3)+2+2
- Describe the structure of Teleost gill with diagram. Describe the process of respiration in Teleost. (4+2)+4
- Draw and describe the modifications of aortic arches in reptiles. Distinguish between heart of fish and heart of Amphibia. Name three epidermal derivatives in mammals. 4+3+3
- Give a comparative account of cerebrum and cerebellum of Reptiles and Mammals with diagrams. Comment on 4 cranial nerves and their distribution in Amniotes. 6+4
- Comment on the role of anaerobic bacterial function in ruminant stomach of Bos. Define four types of dentition in mammals with labelled diagram and example. 4+(4+2)
- How does the skin of amphibians help them in respiration and water absorption? What do you mean by tadpoles tooth? Name the bones of pelvic girdle in Pigeon. 5+2+3

Please Turn Over

- (g) Write short notes on (*any two*) : 5×2
- (i) Poison glands in Amphibians
 - (ii) Function of Mammalian ear in balancing and hearing
 - (iii) Olfactory receptors in fish.
- (h) Distinguish between (*any four*) : 2½×4
- (i) Salt gland and Sweat gland
 - (ii) Air sac and Air capillary
 - (iii) Rectrices and Remiges
 - (iv) Foramen Magnum and Foramen Monro
 - (v) Molar and Pre molar.
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