2026

ZOOLOGY

(Minor)

Paper : ZLG4200104MN

(Diversity of Chordates)

Full marks : 45

Time : 2 hours

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

1. Choose the correct answer : 1×5=5

(i) The dipleurula concept is associated with

(A) arthropods

(B) echinoderms

(C) molluscs

(D) annelids

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(ii) The body covering of tunicates is called

(A) cuticle

(B) tunic

(C) shell

(D) carapace

(iii) Retrogressive metamorphosis is associated with

(A) loss of primitive features

(B) loss of advanced chordate features

(C) gain of complexity

(D) No Change

(iv) Placoid scales are found in

(A) bony fishes

(B) cartilaginous fishes

(C) amphibians

(D) reptiles

(v) Archaeopteryx is considered

(A) reptile

(B) bird

(C) connecting link between reptiles and birds

(D) mammal

2. Answer the following questions (any *five*) : 2×5=10

(a) Mention two similarities between echinoderm larvae and chordates.

(b) What are pharyngeal gill slits?

(c) What is retrogressive metamorphosis?

(d) Mention two chordate features seen in larval Urochordata.

(e) State the role of paired appendages in vertebrates.

(f) Name the components of axial skeleton.

(g) What is the significance of lungs in tetrapod evolution?

(h) How does snake venom help in prey capture?

(i) Mention two reptilian features of Archaeopteryx.

(j) Define heterodont dentition.

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3. Answer the following questions (any *four*) : 5×4=20

(a) Describe the Echinoderm theory with supporting evidence.

(b) Explain the significance of notochord in chordates.

(c) Compare between Hemichordata and Urochordata.

(d) Describe types of jaw suspensorium in vertebrates.

(e) Differentiate between Chondrichthyes and Osteichthyes.

(f) Explain the mechanism of venom injection in snakes.

(g) Write a detailed note on migration in fishes.

(h) Why are Prototherians considered a connecting link between reptiles and mammals? Explain with suitable features.

4. Answer any *one* of the following questions : 10

(a) Give a detailed account of larval forms of protochordates and explain their evolutionary significance. 10

(b) Explain various structural and physiological adaptations that help birds in flight. Why is muscle development important for flight? 4+4+2= 10

(c) Explain different types of parental care in amphibians. Why are amphibians called "dual life" animals? 8+2=10

(d) Give a detailed account of the general characteristics of mammals and discuss their classification up to order with suitable examples. 5+5=10

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