

2023

Time - 3 hours

Full Marks - 60

*Answer **all groups** as per instructions.*

Figures in the right hand margin indicate marks.

Draw labelled diagrams wherever necessary.

GROUP – A

1. Fill in the blanks. (all) [1 × 8]
- (a) In vertebrates, notochord is replaced by _____.
 - (b) In Petromyzon, there are _____ pairs of gill slits.
 - (c) Tadpole of Herdmania undergoes _____ metamorphosis.
 - (d) Axolotle is the larva of _____.
 - (e) The reptiles confined in New Zealand is _____.
 - (f) The muscle blocks of the body of Amphioxus are also called _____.
 - (g) Six major zoogeographical regions of the world were formulated by _____.
 - (h) Chordates with backbone are called _____.

[2]

GROUP – B

2. Answer any eight of the following questions within two to three sentences each. [1½ × 8]

- (a) Branchial basket
- (b) General characteristics of Hemichordata.
- (c) Name three poisonous snakes of India.
- (d) Why do birds migrate ?
- (e) What is adaptive radiation ?
- (f) Name three primary chordate characters.
- (g) What is the significance of a marsupium ?
- (h) Why Sphenodon is called a living fossil ?
- (i) What is continental drift ?
- (j) Discuss characters of Cetacea.

GROUP – C

3. Write notes on any eight of the following within 75 words each.

[2 × 8]

- (a) Rhyncocephalia
- (b) Chondrichthyes

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- (c) Poisonous apparatus
- (d) Morphological changes during evolution of Amphibia
- (e) List out reptilian characteristics of Archaeopteryx.
- (f) What is adaptive radiation ? Give an example of it.
- (g) Wheel organ
- (h) Age of reptiles
- (i) Primates
- (j) Neoteny and paedogenesis

GROUP – D

Answer *all* questions within 500 words each.

4. Discuss the affinities and systematic position of Cephalochordata. [6]

OR

Describe Dipleurula concept of origin of Chordates.

5. Write an essay on accessory respiratory organs in fishes. [6]

OR

Describe the parental care in Amphibia.

[4]

6. Give an account on flight adaptations in bird. [6]

OR

Describe affinities of Sphenodon and justify it as a living fossil.

7. Discuss general characters and affinities of Prototheria. [6]

OR

Write an essay on zoogeographical distribution of animals.