

AP-452

B.Sc. Part-II (Semester-III) Examination
ZOOLOGY
(Life and Diversity of Chordata and Concept of Evolution)

Time—Three Hours]

[Maximum Marks—80

Note :—(1) All questions are compulsory.

- (2) Question No. 1 carries 8 marks and the remaining SIX questions carry 12 marks each.
- (3) Illustrate your answer with suitable diagrams wherever necessary.

1. (A) Fill in the blanks :

- (i) The liver of the dog fish is _____ lobed.
- (ii) The *Rana tigrina* is commonly called as _____.
- (iii) Amphioxus is also called as _____.
- (iv) Connecting link between Annelida and Arthropoda is _____.

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(B) Choose correct alternative from the following :

(v) Kidney of Pigeon is _____.

- (a) Mesonephros
- (b) Opisthonephros
- (c) Metanephric
- (d) Pronephric

(vi) Theory of use and disuse of organs originally proposed by _____.

- (a) Weismann
- (b) Lamark
- (c) Hugo de Vires
- (d) Muller

(vii) The Venom of Cobra is _____.

- (a) Haemotoxic
- (b) Neurotoxic
- (c) Histolytic
- (d) None of these

(n) Physiological evidences of evolution

(o) Archaeopteryx.

OR

(p) Anatomical evidences of evolution

(q) Cast and Moulds.

(r) Peripatus.

12

6. Give an account of Darwinism.

OR

Define speciation and modes of speciation.

12

7. Describe the following :

(s) Ramapithecus.

(t) Desert adaptations.

(u) Basic Plan of aortic arches in the vertebrates.

OR

(v) Modern Man.

(w) Terrestrial adaptations.

(x) Aortic arches in Birds.

12

(viii) Another name for Ductus Cuvieri is _____.

(a) Aorta

(b) Common Cardinal Veins

(c) Caudal Artery

(d) Parietal Veins

2

(C) Answer in **ONE** sentence :

(ix) Give two types of snake venom.

(x) Garden lizard is include in which order of reptilia.

(xi) How many chambers are present in heart of mammals ?

(xii) Define Fossils.

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2. Describe the following :

(a) Wheel organ.

(b) Mechanism of respiration in Scoliodon.

(c) Affinities of Amphioxus with Annelida.

OR

- (d) Feeding mechanism of *Amphioxus*.
- (e) External characters of *Scoliodon*.
- (f) Significance of Migration in fishes. 12

3. Describe the following :

- (g) Cutaneous respiration in *Rana tigrina*.
- (h) Heart of Garden lizard.
- (i) Parental Care in Amphibia (Any one example).

OR

- (j) External characters of Garden Lizard.
- (k) Male urinogenital system of *Rana tigrina* (diagram only).
- (l) Snake Venom. 12

4. Describe Migration in Birds.

OR

Describe the salient features of Metatheria and Prototheria.
12

5. Describe the following :

- (m) Radioactive carbon dating of fossils.