

**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 remaining Six questions carry 12 marks each.

(3) Illustrate your answer with suitable diagram wherever necessary.

1. (A) Fill in the blanks :— 2
- (i) The characteristic sound made by Frog is known as _____.
 - (ii) _____ are vestigial structure in Horse.
 - (iii) _____ is connecting link between annelida and arthropoda.
 - (iv) Summer sleep of Frog is called as _____.
- (B) Choose correct alternative from the following :— 2
- (v) Viper venom is _____.
 - (a) Neurotoxic (b) Non-poisonous
 - (c) Haemotoxic (d) None of above - (vi) Insulin is a _____.
 - (a) Vitamin (b) Lipid
 - (c) Hormone (d) Enzyme - (vii) Kidney of an adult mammal is _____.
 - (a) Pronephros (b) Mesonephros
 - (c) Opithonephros (d) Metanephros - (viii) Marsupial found only in Australia is _____.
 - (a) Opossum (b) Kangaroo
 - (c) Bandicoots (d) Wombat
- (C) Answer in **one** sentence :— 4
- (ix) How many lobes are present in liver of scoliodon ?
 - (x) What is migration in animals ?
 - (xi) What is difference between endocrine gland and exocrine gland ?
 - (xii) What type of skull is found in Apes ?
2. Describe the structure and working of heart of scoliodon. 12

OR

Describe the Digestive System of Amphioxus.

3. Explain the following :— 12
- (a) Parental care in Amphibia (any one example).
 - (b) Snake venom.
 - (c) Urinogenital System in male Rana-tigrina (diagram only).

OR

- (d) External features of Frog (diagram only)
(e) Male urinogenital system of Calotes.
(f) External features of heart of frog.
4. Describe the respiratory system in pigeon. 12
- OR**
- Describe the salient features of Prototheria.
5. Explain the following :— 12
- (g) Biochemical evidences of evolution.
(h) Archeopteryx as connecting link.
(i) Radioactive carbon dating of fossils.
- OR**
- (j) Importance of fossil record.
(k) Analogous and homologous organs
(l) Fossilization.
6. Explain the following :— 12
- (m) Gene pool
(n) Divergent evolution
(o) Genetic drift.
- OR**
- (p) Darwinism
(q) Coevolution
(r) Hardy-Weinberg equilibrium.
7. Explain the following :— 12
- (s) Modern man
(t) Aortic arches in birds
(u) Terrestrial adaptation
- OR**
- (v) Neanderthal man
(w) Aquatic adaptation
(x) Aortic arches in mammals.