

5. Describe the following.

- (m) Embryological evidences of evolution.
- (n) Tracks and trails.
- (o) Importance of fossil record.

OR

- (p) Vestigial organs.
- (q) Conditions for fossilization.
- (r) Peripatus.

12

6. Describe the following.

- (s) Lamarkism.
- (t) Allopatric speciation.
- (u) Gene pool

OR

- (v) Neo Darwinism
- (w) Sympatric speciation.
- (x) Genetic drift.

12

7. Give an account on Evolution of Man.

OR

Discuss on Aquatic adaptation with suitable examples.

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AR - 544

Third Semester B. Sc. (Part - II) Examination

ZOOLOGY

(Life and Diversity of Chordata and Concept of Evolution)

P. Pages : 4

Time : Three Hours]

[Max. Marks : 80

- Note :** (1) All questions are compulsory.
 (2) Question no. **one** carries **eight** marks and remaining **six** questions carry **twelve** marks each.
 (3) Illustrate your answer with suitable diagrams wherever necessary.

1. (A) Fill in the blanks :—

- (i) Wings of bird and wings of butterfly are _____ organs.
- (ii) _____ is an extinct link between reptiles and birds.
- (iii) Pigeon's milk is manufactured in _____
- (iv) Heart of frog is _____ chambered. 2

(B) Choose correct alternative from the following:

- (v) Tail of Scoliodon is _____
- (a) Homocercal (b) Hypocercal
- (c) Hypercercal (d) Hetero cercal

(vi) Third eyelid in frog is called ——— .

- (a) Upper eyelid
- (b) Pineal eye
- (c) Nictitating membrane
- (d) Lower eyelid.

(vii) Teeth in scoliodon are ——— .

- (a) Heterodont and monodont
- (b) Homodont and polyphodont
- (c) Heterodont and acrodont
- (d) Heterodont and thecodont.

(viii) Functional unit of excretory organ in Amphioxus is ——— .

- (a) Nephron
- (b) Neuron
- (c) Renal Corpuscles
- (d) Flame cell

2

(C) Answer in **one** sentence.

- (ix) What is croaking ?
- (x) Define genetic drift.
- (xi) Where otoliths are situated in scoliodon ?
- (xi) Give the scientific name of pigeon. 4

2. Describe the following :—

- (a) Hatschek's nephridium.
- (b) Types of Migration in fishes.
- (c) Structure of Heart in Scoliodon.

OR

- (d) Pharynx of Amphioxus.
- (e) External characters of scoliodon.
- (f) Lateral line receptors. 12

3. Explain the following :—

- (g) Major arteries of **Rana tigrina**.
- (h) Urinogenital system of male garden lizard (Labelled diagram only)
- (i) Snake Venom.

OR

- (j) Parental care in any Anura. (one example)
- (k) Structure of Heart in Calotes.
- (l) Anti-Venom. 12

4. Give an account on flight adaptations in Birds.

OR

Give an account on Aquatic mammals. 12