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4. Explain the origin and evolution of Tetrapods. (12)
5. Elaborate the mechanism of maintaining the internal balance of salt and water in various groups of fishes that help them adapt to their habitats. (12)
6. (a) Describe the salient features and fauna of Palearctic and Oriental regions. (8)
(b) Explain the biting mechanism of poisonous snakes. (4)
7. Write short note on **ANY THREE** of the following :
 - (i) Continental drift theory
 - (ii) Reptilian affinity of Prototherians
 - (iii) Echinoderm theory of origin of chordates
 - (iv) Retrogressive metamorphosis (3×4=12)

(1000)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 1385

C

Unique Paper Code : 32231301

22 DEC 2022

Name of the Paper : Diversity of Chordates

Name of the Course : B.Sc. (Hons.) Zoology,
LOCF

Semester : III

Duration : 3 Hours

Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
 2. Attempt **FIVE** questions in all.
 3. Question No. I is compulsory.
 4. Illustrate your answers with diagram wherever necessary.
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1. (a) Give the scientific name and classify each of the following upto order :
 - (i) Sea squirt
 - (ii) Midwife toad
 - (iii) Glass snakes

P.T.O.

(iv) Sea horse

(4×1½=6)

(b) Differentiate between :

(i) Physostomous and Physoclistous swim bladder

(ii) Lacertilia and Ophidia

(iii) Ratitae and Carinatae

(iv) Tornaria and Ascidian tadpole larva

(4×2=8)

(c) Give the location and function of the following :

(i) Gas gland

(ii) Uropygial gland

(iii) Patagium

(iv) Loreal pit

(4×1½=6)

(d) Mark the following statements as TRUE or FALSE :-

(i) Balanoglossus is a ciliary feeder.

(ii) Swim bladder is present in Elasmobranch.

(iii) Excretion in amphibians is ureotelic.

(iv) All the reptiles have diapsid skull.

(v) Presence of pygostyle helps the birds for stability in air.

(vi) Metatherians are oviparous. (6×1/2=3)

(d) Explain :

(i) Paedogenesis

(ii) Cursorial adaptation

(iii) Lateral Line

(iv) Realm

(4×1=4)

2. Give a detailed account of migratory behavior of birds. (12)

3. (a) What are the reasons for considering *Sphenodon* as a connecting link between amphibians and reptiles? (8)

(b) Describe the catadromous migration in fishes with suitable example. (4)