

This question paper contains **3** printed pages]

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S. No. of Question Paper : **5792**

Unique Paper Code : **6792011202**

Name of the Paper : **Diversity of Life Forms II**

Name of the Course : **B.Sc. (Hons.) Biological Sciences**

Semester : **II**

Duration : **2 Hours**

Maximum Marks : **60**

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt *four* questions in all.

Question No. 1 is compulsory.

Draw well labelled diagram wherever possible.

1. (a) Define the following (any *four*) :

4×1=4

- (i) Enterocoelomata
- (ii) Mesonephric kidneys
- (iii) Pneumatic bones
- (iv) Living fossil
- (v) Systematics.

(b) Differentiate the following (any *three*) :

3×2=6

- (i) Chondrichthyes and Osteichthyes

P.T.O.

- (ii) Catadromous and Anadromous migration
 - (iii) Flora and Monograph
 - (iv) Natural and Artificial classification systems.
- (c) Write scientific names and classification upto order (any *two*) : $2 \times 1 = 2$
- (i) Acorn Worm
 - (ii) Lamprey
 - (iii) Cobra.
- (d) Fill in the blanks (any *three*) : $3 \times 1 = 3$
- (i) Jawless fish belong to class.....
 - (ii) APG stands for.....
 - (iii) Species Plantarum was published by.....
 - (iv) The term 'taxonomy' was coined by.....
2. (a) Define Biodiversity. Explain various types of Biodiversity and comment upon their significance. 7
- (b) What is herbarium ? Discuss about herbarium functions and important herbaria of India (any *three*) and world (any *three*). 8
3. (a) Write characteristic features of chordates. What are the distinguishing characteristics between Urochordata and Cephalochordata ? 8
- (b) What is a key ? Give an account of dichotomous keys and their types with reference to plant identification. 7

4. (a) Write general characteristics of class Mammalia. State the basis of classification of mammalian infraclass prototheria, metatheria and eutheria. 7
- (b) Describe the reproductive structures of *Ginkgo*. 8
5. (a) What are Zoogeographical realms ? Explain the various zoogeographical realms along with distribution of fauna in each realm. 8
- (b) Explain Hutchinson's system of classification. Write merits and demerits of Hutchinson's system of classification. 7
6. Write short notes on the following (any *three*) : 3×5=15
- (i) Main characteristics of Agnatha
- (ii) General characteristics and classification of class Aves upto order
- (iii) Role of Botanical Gardens
- (iv) Economic importance of Gymnosperms.