

This question paper contains 3 printed pages]

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S. No. of Question Paper : 1390

Unique Paper Code : 6792011103

Name of the Paper : Diversity of Life Forms I

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

Semester : I

Duration : 2 Hours

Maximum Marks : 60

Instructions to Candidates :

(Write your roll number on the top immediately on receipt of this question paper.)

This paper contains 6 questions. Answer only four questions.

Question number 1 is compulsory to attempt.

All parts of the question should be answered together.

Attempt each new question on a fresh page.

1. (a) Define the following (any 4) :

1×4=4

(i) Biodiversity

(ii) Hormogonia

(iii) Mycellium

(iv) Strobilation

(v) Ametabola

(vi) Madreporite

P.T.O.

(b) Fill in the blanks :

1×4=4

- (i) Common name of Selaginella is
- (ii) The main pigment in red algae is
- (iii) is present in molluscs for feeding.
- (iv) type of cells are present in cnidarians for defense.

(c) Match the following :

1×4=4

- | | |
|--------------------------|-------------------|
| (i) Nostoc | (a) Lichens |
| (ii) Symbiosis | (b) Heterocyst |
| (iii) Appendiculate | (c) Pteridophytes |
| (iv) Vascular cryptogams | (d) Marchantia |

(d) Differentiate between the following :

1.5×2=3

- (i) Male & Female Ascaris
- (ii) Polyp & Medusae.

2. (a) With the help of labelled diagrams explain the development of male and female gametophytes in Selaginella. 7.5

(b) Give a detailed account of life cycle of pork tapeworm. 7.5

3. (a) With the help of suitable diagram illustrate the water vascular system in asteroidea. 7.5

- (b) Write short notes on the following (any 3) 3×2.5=7.5
- (i) Vesicular Arbuscular Mycorrhiza (VAM) 2.5
 - (ii) Economic importance of Lichens 2.5
 - (iii) Female sex organ of Polysiphonia 2.5
 - (iv) Vegetative structure of Rhizopus 2.5
4. (a) Discuss key factors responsible for the biodiversity crisis/loss. 3.5
- (b) Describe the thallus structure and reproduction in Nostoc. 4
- (c) Discuss the process of pearl formation in molluscs with the help of suitable diagrams. (7.5)
5. (a) Give an illustrative account of the sporophyte of Marchantia. 7.5
- (b) Give a detailed description of the five kingdom classification given by R.H. Whittaker. 7.5
6. Discuss the following (any three) : (5×3=15)
- (i) Structure of gemma cup of Marchantia
 - (ii) Canal system in Sycon
 - (iii) Alteration of generation in Ectocarpus
 - (iv) Sol gel Theory.