

- (b) Write the ecological and economic importance of Bryophytes. (7)

4. (a) Give and account of locomotion in protozoa. (7)

- (b) Draw and explain Canal System in Sponges. (8)

5. (a) Briefly explain the general characteristics and outline classification of Phylum Mollusca. Add a note on Torsion. (10)

- (b) Explain the Linnean system of classification and binomial nomenclature. (5)

6. Write short notes on *any three* of the following : (5×3=15)

- (a) Triphasic alternation of generations in *Polysiphonia*.

- (b) Vegetative structure of *Rhizopus*.

- (c) ICZN rules of nomenclature.

- (d) Alternation of generations in Cnidaria.

(200)

Your Roll No.....

Sr. No. of Question Paper : 1054 D

Unique Paper Code : 6792011103

Name of the Paper : Diversity in Life forms I

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

Semester : I

Duration : 2 Hours Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. **All** parts of a question must be attempted together.
3. Illustrate your answers with suitable diagrams wherever necessary.
4. This question paper has **six** questions.
5. **All** questions carry equal marks.
6. Attempt any **FOUR** questions, including Question No. 1, which is compulsory.

P.T.O.

1. (a) Define **any four** of the following : (1×4=4)

- (i) Heterocyst
- (ii) Appendiculate scales
- (iii) Ligule
- (iv) Metamorphosis
- (v) Madreporite

(b) Differentiate between the following (**Any 4**)
(2×4=8)

- (i) Heteroecious and Autoecious rust fungi
- (ii) Ectomycorrhiza and Endomycorrhiza
- (iii) Mega- and microsporangium in *Selaginella*
- (iv) Ostia and Osculum
- (v) Platyhelminths and Aschelminths
- (vi) Polyp and Medusa

(c) Write True or False : (0.5×6=3)

- (i) *Nostoc* trichome has a typical moniliform appearance.

(ii) Uredospores of *Puccinia graminis* are uninucleate.

(iii) The tetrasporophyte in *Polysiphonia* develops from carpospores.

(iv) Echinoderm adults are bilaterally symmetrical.

(v) Cnidoblasts are the defence organs of Cnidarians.

(vi) Taeniasis is caused by *Fasciola hepatica*.

2. (a) Describe various stages in the life cycle of *Puccinia graminis* found on secondary host with the help of well-labelled diagrams. (6)

(b) Give a detailed account of the external and internal thallus structure of *Marchantia* with the help of well labelled diagrams. (5)

(c) Describe the filament of *Nostoc* with the help of labelled diagram. (4)

3. (a) Describe the various types of lichens based on their external morphology giving examples of each type. (8)