

Roll No.

Total No. of Questions : 07] [Total No. of Printed Pages : 05

RJ-124

B. Sc. B. Ed. (Secondary) Examination, 2024

(First Semester)

BOTANY

DCM-I

**Biodiversity of Microbes, Algae, Fungi,
Bryophytes, and Tracheophyta**

Time : 3 Hours]

[Maximum Marks : 60

Note : All questions are compulsory. Marks are indicated at right.

Section A

1×5=5

(Objective Type Questions)

1. Multiple Choice Questions :

- (a) The nucleic acid in TMV virus is :
- (i) SS RNA
 - (ii) dS DAN
 - (iii) SS DNA
 - (iv) None of the above

- (b) The ascogonium in *Penicillium* sp. is
 - (i) Uninucleate
 - (ii) Multinucleate
 - (iii) Binucleate
 - (iv) None of the above
- (c) The dorsiventral thallus of *Anthoceros* sp. contains :
 - (i) Virus
 - (ii) *Nostoc* colony
 - (iii) *Volvox* colony
 - (iv) None of the above
- (d) Hanging sporangia occur in :
 - (i) *Pteris* sp.
 - (ii) *Selaginella*
 - (iii) *Equisetum* sp.
 - (iv) None of the above
- (e) An ovuliferous scale in *Pinus* sp. contains :
 - (i) Two ovules
 - (ii) One ovules
 - (iii) Many ovules
 - (iv) None of the above

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Section B
(Short Answer Type Questions)

3×5=15

2. (i) Structure of Cyanobacteria .
Or
Economic importance of algae.
- (ii) Importance of *Mucor* sp.
Or
Economic importance of *Puccinia* sp.
- (iii) General characteristics of Bryophytes.
Or
Sporophyte of *Anthoceros* sp.
- (iv) General characteristics of Pteridophytes.
Or
General characteristics of *Rhynia* sp.
- (v) Coralloid root of *Cycas* sp.
Or
Pinus Male cone.

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Section C
(Long Answer Type Questions)

8×5=40

3. Illustrate transduction and its significance.
Or
Illustrate the Life cycle of *Vaucheria* sp.
4. Describe the characteristics of Lichens and its economic importance. <https://www.onlinebu.com>
Or
Illustrate the life-cycle of *Puccinia* sp.
5. Illustrate the sporophyte of *Anthoceros* and *Marchantia* sp.
Or
Illustrate the life-cycle of *Funaria* sp.
6. Describe the development of male and female gametophyte of *Selaginella* sp.

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Or

Describe the stem anatomy and strobilus of *Equisetum* sp.

7. Describe the differences between male cones of *Cycas* and *Pinus* sp. with suitable diagram.

Or

Describe the female strobilus of *Pinus* sp. How does it differ from Meganporophyll of *Cycas* sp. ?