

## Semester - II

### MAJOR COURSE –MJ 2: Algae and Bryophyta

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attendance & others + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75

Pass Marks: Th (MSE + ESE) = 30

Instruction to Question Setter for

Semester Internal Examination (SIE 10+5=15 marks):

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Written Test (SIA) of 15 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.

End Semester Examination (ESE 60 marks):

There will be two group of questions. Group A will contain three questions in which all are to be answered. Question No.1 will be very short answer type (not MCQ) consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks each. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to be answered.

Note: There may be subdivisions in each question of group B.

### THEORY Lectures 60

#### UNIT1: ALGAE ( 8 classes)

General characteristics; Classification proposed by Fritsch.

#### UNIT2: CHLOROPHYTA (8 classes)

General characteristics; morphology and life cycle of *Volvox* and *Oedogonium*

#### UNIT3:CHAROPHYTA (8 classes)

General characteristics; morphology and life cycle of *Chara*.

#### UNIT4:XANTHOPHYTA (8 classes)

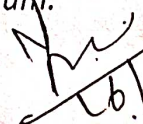
General characteristics; morphology and life cycle of *Vaucheria*.

#### UNIT5:PHAEOPHYTA (8 classes)

General characteristics; morphology and life cycle of *Ectocarpus*.

#### UNIT6:RHODOPHYTA (8 classes)

General characteristics; morphology and life cycle of *Batrachospermum*.

  
26/11/22  
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## JNIT7:BRYOPHYTES (12 classes)

General characteristics and life cycle of

1. *Marchantia*
2. *Anthoceros*
3. *Sphagnum*
4. Evolution of Gametophyte and Sporophyte in Bryophytes.
5. Economic importance of bryophytes.

### Suggested readings

1. Vashishta, B.R., Singh, V.P., and Sinha A.K. (2014) Botany for Degree Students (Algae) S. Chand & Company Ltd.
2. Gangulee, H.C. and Kar, A.K. 2012, College Botany Volume-II
3. Lee, R.E. (2008), Phycology, Cambridge University Press, Cambridge. 4<sup>th</sup> edition.
4. Parihar, N.S. (1991), An introduction to Embryophyta: Vol. 1. Bryophyta, Central Book Deposit, Allahabad.
5. Raven, P.H., Johnson, G.B., Losos, J.B., Singer, S.R. (2005), Biology, Tata Mc Graw Hill, Delhi.
6. Vander-poorteri 2009 Introduction to Bryophyta, COP.

### PRACTICALS

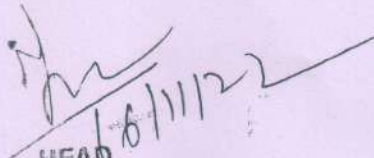
1. Study of vegetative and reproductive structures of *Nostoc*, *Volvox*, *Oedogonium*, *Chara*, *Vaucheria*, *Ectocarpus* and *Batrachospermum* by preparing temporary slides and also by permanent slides.
2. Study of genus *Marchantia*, *Anthoceros* and *Sphagnum* by preparing temporary slides and also by permanent slides

### Practical examination

Full marks: 25

Time: 03 Hrs.

1. Preparation of temporary slides of any one algae included in the syllabus.  
- 06
2. Preparation of temporary slides of any one bryophytes included in the syllabus. 06
3. Spotting (2 x 2 marks) 04
4. Viva voce 04
5. Class records/ Model/ Chart. 05

  
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