



LOYOLA COLLEGE (AUTONOMOUS) CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION

PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SECOND SEMESTER – APRIL 2025

UPB2MC01 – ALGAE AND BRYOPHYTES



Date: 25-04-2025

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 PM

SECTION A - K1 & K2 (CO1)

Q. No	Levels	Answer the following, each in about 50 words (10 x 2 = 20)
1	K1	Distinguish between epizoic and endozoic algae.
2		Mention the functions of air bladder.
3		What is SCP?
4		Comment on the cell wall of diatoms.
5		Define gemmae.
6	K2	Illustrate diplobiontic life cycle with an example.
7		List the unique features of <i>Ectocarpus</i> .
8		Mention the advantages of algal biofuel over traditional fossil fuels.
9		Infer on the amphibian characteristics of Bryophytes.
10		List out the significance of operculum and peristome in <i>Funaria</i> sporophyte.

SECTION B – K3 & K4 (CO2)

		Answer the following in 500 words. (4 x 10 = 40) Draw diagrams / flowcharts wherever necessary.
11	K3	Analyse the asexual reproduction in <i>Volvox</i> . [OR]
12		Elucidate the vegetative reproduction types in algae.
13		How does asexual reproduction occur in diatoms? [OR]
14		Discuss the methods involved in cultivation of seaweeds.
15	K4	Enumerate the salient features of Hepaticopsida. [OR]
16		Outline the classification of Bryophytes as given by Rothmaler (1951).
17		Give an account on the anatomical features of <i>Anthoceros</i> - capsule. [OR]
18		Bring out the economic importance of Bryophytes.

SECTION C – K5 & K6 (CO3)

		Answer the following in 1000 words. (2 x 20 = 40) Draw diagrams / flowcharts wherever necessary.
19	K5	Summarise on thallus organization, flagellation patterns and reserve food materials in algae. [OR]
20		Explain the life cycle of <i>Gracilaria</i> . Add a note on its tetrasporophyte stage.
21	K6	Elaborate on the structure, properties and commercial uses of algal phycocolloids. [OR]
22		<i>Marchantia</i> shows alternation of generation – Justify.

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