

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted from the academic year 2025 – 2026)

B.Sc. DEGREE EXAMINATION, APRIL 2026
BRANCH V(a) – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY
SECOND SEMESTER

COURSE : CORE
PAPER : BRYOPHYTES AND PTERIDOPHYTES
SUBJECT CODE : 25BT/MC/BP23
TIME : 3 HOURS

MAX. MARKS: 100

SECTION A		CO	KL
Q. No.	ANSWER IN A SENTENCE (8 X 2 = 16)		
1	Explain the rhizoids in <i>Marchantia</i> .	1	1
2	What is annulus in <i>Equisetum</i> ?	1	1
3	Define Protonema.	1	1
4	Explain Gemma cups.	1	1
5	What is peristome teeth? Where it is found?	1	1
6	Define Prothallus.	1	1
7	Compare the elaters in <i>Equisetum</i> and Bryophytes.	1	1
8	Differentiate Bryophyta and Pteridophytes.	1	1
Q. No.	SECTION B ANSWER THE FOLLOWING IN 50 WORDS (8 X 3 =24)	CO	KL
9	Differentiate Urostachya and Rhopalostachya.	2	2
10	Explain any three modes of vegetative reproduction in Bryophytes.	2	2
11	List any three economic importances of Pteridophytes.	2	2
12	What is Heterospory?	2	2
13	Draw and label the internal structure of <i>Anthoceros</i> thallus.	2	2
14	Define alternation of generations.	2	2
15	What are Pseudoelaters? Where is it Present?	2	2
16	Explain the structure of mature archegonium in <i>Equisetum</i> .	2	2

SECTION C			
Q. No.	ANSWER ANY <u>FOUR</u> OF THE FOLLOWING IN 500 WORDS. (4 X 5 =20)	CO	KL
17	Outline the sexual life cycle of <i>Anthoceros</i> .	3	3
18	Draw and label the strobilus of <i>Lycopodium</i> and explain its structure.	3	3
19	List the general characters of pteridophytes.	3	3
20	Explain Apospory and Apogamy.	3	3
21	Classify Bryophytes according to Watson (1971).	3	3
SECTION D			
Q. No	ANSWER ANY <u>TWO</u> OF THE FOLLOWING IN 1000 WORDS. DRAW DIAGRAMS WHEREVER NECESSARY. (2 X 10 =20)	CO	KL
22	Describe the internal structure of the stem and leaves of <i>Marsilea</i> .	4	4
23	Illustrate the mature sporophyte of <i>Polytrichum</i> .	4	4
24	Explain the ecological and economic importance of Bryophytes.	4	4
SECTION E			
Q. No.	ANSWER ANY <u>TWO</u> OF THE FOLLOWING IN 1000 WORDS. DRAW DIAGRAMS WHEREVER NECESSARY. (2 x 10 = 20)	CO	KL
25	Elucidate the sexual reproduction in <i>Marchantia</i> .	5	5
26	Elaborate the stelar evolution in Pteridophytes.	5	5
27	Analyse the characteristic features of Bryophytes.	5	5
