

TSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
MSc DEGREE EXAMINATION MAY 2026
(First Semester)

Branch – **BOTANY**

PLANT DIVERSITY – I

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Which pigment gives the brown colour in Phaeophyceae? a) Fucoxanthin b) Phycoerythrin c) Phycocyanin d) Chlorophyll b	K1	CO1
	2	Which algal class stores laminarin and mannitol as reserve food? a) Chlorophyceae b) Phaeophyceae c) Rhodophyceae d) Bacillariophyceae	K2	CO1
2	3	The organism <i>Chlorella</i> is mainly used for _____. a) Single-cell protein b) Antibiotic c) Biofertilizer d) Biofuel	K1	CO2
	4	Which culture medium is suitable for large-scale algal cultivation? a) Bold's Basal Medium b) Murashige & Skoog c) Knop's Solution d) Hoagland Solution	K2	CO2
3	5	<i>Albugo candida</i> belongs to which group? a) Oomycetes b) Ascomycetes c) Basidiomycetes d) Zygomycetes	K1	CO3
	6	Which of the following fungi reproduces by budding? a) <i>Saccharomyces</i> b) <i>Rhizopus</i> c) <i>Puccinia</i> d) <i>Aspergillus</i>	K2	CO3
4	7	In lichens, the mycobiont is generally a member of _____. a) Ascomycetes b) Basidiomycetes c) Deuteromycetes d) Oomycetes	K1	CO4
	8	The association between algae and fungus in lichens is _____. a) Parasitism b) Symbiosis c) Commensalism d) Competition	K2	CO4
5	9	Which bryophyte shows thalloid body organization? a) <i>Funaria</i> b) <i>Polytrichum</i> c) <i>Anthoceros</i> d) <i>Sphagnum</i>	K1	CO5
	10	The main function of rhizoids in bryophytes is _____. a) Reproduction b) Anchorage and absorption c) Photosynthesis d) Conduction	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Explain the structure, reproduction and life cycle of <i>Polysiphonia</i> .	K2	CO1
	(OR)			
	11.b.	Describe the general features and economic importance of <i>Diatoms</i> .		
2	12.a.	Discuss the ecological importance of algae and their role in carbon fixation.	K3	CO2
	(OR)			
	12.b.	Illustrate the methods of collection, preservation and staining of algae for laboratory study.		
3	13.a.	Explain the classification of fungi and describe the structure and reproduction in <i>Aspergillus</i> .	K3	CO3
	(OR)			
	13.b.	Analyze the economic importance of fungi in food and medicine.		
4	14.a.	Describe the structure and types of lichens with neat diagram.	K4	CO4
	(OR)			
	14.b.	Explain the spore dispersal mechanisms in fungi and their significance.		
5	15.a.	Compare the structure and reproduction in <i>Sphagnum</i> and <i>Anthoceros</i> .	K5	CO5
	(OR)			
	15.b.	Evaluate the economic importance of bryophytes with examples.		

SECTION - C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Discuss the historical development of phycology and outline the classification of algae by F.E. Fritsch.	K4	CO1
2	17	Explain the techniques of mass cultivation of <i>Gelidium</i> and its industrial uses.	K4	CO2
3	18	Describe the different modes of nutrition in fungi and explain with examples.	K3	CO3
4	19	Analyze the process of parasexual cycle in fungi and its genetic significance.	K4	CO4
5	20	Evaluate the evolution of sporophyte in bryophytes and its progressive complexity.	K5	CO5

Z-Z-Z

END