

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2024
(First Semester)

Branch - BOTANY

PLANT DIVERSITY- II

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Question No.	Question	K Level	CO
1	Which of these is associated with leaf trace formation in pteridophytes? a) Culmination b) Venation c) Enation d) Planation	K1	CO1
2	Carinal canal is characteristic of: a) <i>Nephrolepis</i> b) <i>Selaginella</i> c) <i>Psilotum</i> d) <i>Equisetum</i>	K2	CO1
3	In <i>Marsilea</i> the leaf lamina is usually divided into: a) 2 lobes b) 3 lobes c) 4 lobes d) 5 lobes	K1	CO2
4	The emergence of heterospory is highly attributed to: a) microspore b) megaspore c) auxospore d) oospore	K2	CO2
5	The secondary phloem of <i>Lyginopteris</i> composed of: a) tracheids only b) vessels only c) sieve elements only d) sieve tubes only	K1	CO3
6	Which of the following term is not related to wood characteristic of gymnosperms? a) manoxylic b) pycnoxylic c) polyxylic d) uniseriate	K2	CO3
7	The dwarf shoots of <i>Pinus</i> are otherwise called: a) heteroblast b) <i>brachyblast</i> c) Blepharoplast d) Tracheoplast	K1	CO4
8	The mature seed of <i>Taxus</i> is: a) endospermous b) non-endospermous c) perispermous d) pericarpous	K2	CO4
9	The fossils which preserve both external and internal forms are called: a) petrifications b) Compressions c) Incrustations d) impressions	K1	CO5
10	The type genus <i>Lepidocarpon</i> refers to: a) leaf b) fruit c) stem d) seed	K2	CO5

Cont...

SECTION - B (35 Marks)Answer **ALL** questions**ALL** questions carry **EQUAL** Marks

(5 × 7 = 35)

Question No.	Question	K Level	CO
11.a.	Outline the classification of pteridophytes by Reimers, 1954.	K1	CO1
	(OR)		
11.b.	Explain the internal structure of the stem of <i>Equisetum</i> .		
12.a.	Illustrate the sectional view of the sporocarp of <i>Masilea</i> .	K3	CO2
	(OR)		
12.b.	Analyse how heterospory lead the way to seed habit in pteridophytes.		
13.a.	Trace the affinity characteristics of gymnosperms with pteridophytes.	K3	CO3
	(OR)		
13.b.	With neat sketches explain the wood characteristics of gymnosperms.		
14.a.	Assess the advance features of <i>Gnetum</i> flower.	K4	CO4
	(OR)		
14.b.	Distinguish between various types of foliar spurs of <i>Pinus</i> .		
15.a.	Examine the geological time-scale.	K5	CO5
	(OR)		
15.b.	Elucidate the fossil characteristics of <i>Rhynia</i> and show that how it paved the lineage to the advancement features of <i>Psilotum</i> .		

SECTION -C (30 Marks)Answer **ANY THREE** questions**ALL** questions carry **EQUAL** Marks

(3 × 10 = 30)

Question No.	Question	K Level	CO
16	Discuss the life-cycle of <i>Pteridium</i> .	K1	CO1
17	Analyse the evolutionary trends of steles in pteridophyte members.	K3	CO2
18	Critically comment on the characteristic features of various classes of gymnosperms according to Sporne classification.	K3	CO3
19	Examine the economic importance of Gymnosperms.	K4	CO4
20	Describe the methods of fossilization with suitable examples.	K5	CO5

Z-Z-Z

END