Name. _____ **Student Admn. No.: _____**	**Printed Pages:01**

School of Biological and Life Sciences
Summer TermExamination – July - August 2024
[Programme:ZBC] [Semester:III)[Batch:Summer 2024]

Course Title: Archegoniates & Plant Architecture **Course Code: C2UD201B**	**Max Marks: 100** **Time:3 Hrs.**

Instructions:
1. *All questions are compulsory.*
2. *Assume missing data suitably, if any.*

		K Level	COs	Marks
	SECTION-A (15 Marks) 5 Marks each			
1.	Describe the structure and function of archegonia in bryophytes. How does the structure facilitate the reproductive process in these plants?	K2	CO1	5
2.	Explain the evolutionary significance of the transition of plants from aquatic to terrestrial habitats. What key adaptations made this possible?	K2	CO2	5
3.	Discuss the key morphological features used to identify pteridophytes. How do these features aid in their classification?	K2	CO3	5
	SECTION-B(40 Marks) 10 Marks each			
4.	Compare and contrast the reproductive strategies of bryophytes and gymnosperms. Highlight the differences in their reproductive structures and processes.	K3	CO1	10
5.	Analyze the role of vascular tissues in the evolution and diversification of land plants. How did the development of xylem and phloem contribute to their success on land?	K3	CO2	10
6.	Evaluate the importance of plant architecture in the adaptation of land plants. How do different growth forms and structures contribute to the survival and reproduction of terrestrial plants?	K4	CO4	10
7.	Discuss the impact of environmental factors on the external and internal structures of flowering plants. How do these factors influence plant morphology and anatomy?	K5	CO5	10
	SECTION-C (45 Marks) 15 Marks each			
8.	Critically assess the significance of secondary growth in plant architecture. How does secondary growth contribute to the overall structure and longevity of woody plants?	K5	CO1	15
9.	Design an experiment to study the developmental changes in pteridophytes under different environmental conditions. Explain the methodology and expected outcomes.	K6	CO3	15
10	Create a detailed classification key for a given set of gymnosperm species. Include the morphological and anatomical characteristics used in the key and explain how they aid in the identification process.	K6	CO5	15