PRN:		Course Code:	USS 304

Second year B. Sc. End Semester Examination Winter 2023-

Botany - III

Day and Date: Saturday, 02/12/2023 Max Marks: 100

Time: 2.00 to 5.00 PM Duration: 3 hrs.

Instructions: 1) All the questions are compulsory.
2) Draw well labelled diagram wherever necessary.

Q.1		**Attempt the following:**	**25**	**Bloom's Level**	**CLO**
	a)	Explain the apical cell theory for the development of shoot apical meristem.	**8**	L2	CLO1
	b)	Mention the structure and functions of different types of mechanical tissues in plants.	**8**	L2	CLO2
	c)	What is meristem? How are they classified? Describe the meristem tissue on the basis of their origin.	**9**	L4	CLO1
		OR			
	c)	Explain in brief the tunica corpus theory for structural development and add a note on its significance	**9**	L2	CLO3
Q.2		**Attempt the following:**	**25**		
	a)	Explain in brief the significance of annular rings.	**8**	L2	CLO2
	b)	Explain the dicot stem's anatomy using a labeled diagram.	**8**	L2	CLO2
	c)	Differentiate between spring wood and autumn wood.	**9**	L3	CLO2
		OR			
	c)	Describe the distribution of mechanical tissues in plants in relation to their respective functions.	**9**	L2	CLO2

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Q.3	**Attempt the following:**	**25**		
a)	Define pollination. State the different types of pollinations with the help of suitable examples	**8**	L2	CLO3
b)	Illustrate the structure of a bisexual flower with the help of a neat, labelled diagram.	**8**	L2	CLO3
c)	Explain the mechanism of pollen dispersal in case of hydrophily and also the characteristics of a hydrophilous plant.	**9**	L2	CLO3
	OR			
c)	Describe the structure of gynoecium and explain the construction of an ovary.	**9**	L3	CLO3
Q.4	**Attempt the following:**	**25**		
a)	What is Polyembryony? How can polyembryony become significant?	**8**	L1	CLO4
b)	Write an account on the various types of embryo sacs present in flowering plants, with the help of suitable examples.	**8**	L2	CLO4
c)	Describe the development of monocotyledonous embryo with Suitable diagram.	**9**	L3	CLO4
	OR			
c)	What is an inflorescence? Explain the types of inflorescences with the help of diagrams.	**9**	L2	CLO4

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