22BOU309N

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2025
(Third Semester)

Branch – **BOTANY**

VEGETATIVE PLANT BIOLOGY

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	Form which point of root, root hairs develop ? a) Region of maturation b) Region of elongation c) Meristematic region d) Region of root cap	K1	CO1
	2	Which one of the following is not a characteristic of the root a) Presence of root tap b) Presence of unicellular hair c) Presence of chlorophyll d) Absence of buds	K2	CO1
2	3	What is guttation? a) Exudation of xylem sap b) Root pressure c) Radial movement d) Field capacity	K1	CO2
	4	Which among the following is incorrect about climbing roots? a) These roots originate from nodes or internodes b) They help plant climb on the surface c) These roots secrete sticky substances that help the plants to stick on the walls d) Climbing roots help in anchoring the plant to the soil	K2	CO2
3	5	Vascular bundles in dicot stem are a) Closed, conjoint, endarch b) Open, conjoint, endarch c) Closed, conjoint, exarch d) Open, conjoint, exarch	K1	CO3
	6	The xylem of angiosperms is made up of a) Fibres and vessels b) Vessels and tracheids c) Fibres and tracheids d) All of these	K2	CO3
4	7	An organic substance that can withstand environmental extremes and cannot be degraded by any enzyme is a) cuticle b) sporopollenin c) lignin d) cellulose	K1	CO4
	8	_____ is the removal of any excess or undesirable/unproductive branches, shoots, or any other parts of plants. a) Pruning b) Trimming c) Paragola d) Pinching	K2	CO4
5	9	The arrangement of leaves on a stem is called a) Venation b) Vernation c) Phyllotaxy d) Axis	K1	CO5
	10	Parallel venation is a characteristic of a) Legumes b) Grasses c) Parasitic plants d) Xerophytic plants	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.	Discover the structure of young monocot plant root.	K4	CO1
		(OR)		
	11.b.	Examine the zones of the root tip.		
2	12.a.	Differentiate between active absorption and passive absorption.	K4	CO2
		(OR)		
	12.b.	Inspect the types of Mycorrhiza.		
3	13.a.	Identify the different types of stems.	K3	CO3
		(OR)		
	13.b.	Organize the anomalous secondary thickening in *Nyctanthus* stem.		
4	14.a.	Compare the heart wood with sap wood.	K5	CO4
		(OR)		
	14.b.	Interpret the Process of secondary growth in stem.		
5	15.a.	Describe the Leaf modifications in plants.	K6	CO5
		(OR)		
	15.b.	Compile the internal structure of monocot leaf.		

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	Discover the types of roots.	K4	CO1
2	17	Write an elaborate account on the specialized roots in plants.	K5	CO2
3	18	Explicate the normal secondary thickening in dicot stem.	K5	CO3
4	19	Discuss about the physical properties of wood.	K6	CO4
5	20	Analyze the anatomy of dicot leaf with neat diagram.	K4	CO5

Z-Z-Z END