

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2025
(First Semester)

Branch - ZOOLOGY

PLANT BIOLOGY - 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	Name the plant body of <i>Volvox</i> : (i) Thallus (ii) Coenobium (iii) Protonema (iv) Mycelium	K1	CO1
	2	Relate the type of spores formed by <i>Aspergillus</i> to its mode of reproduction: (i) Zygospores (ii) Zoospores (iii) Conidia (iv) Basidiospores	K2	CO1
2	3	Recall the causal agent of bacterial blight of paddy? (i) <i>Xanthomonas</i> (ii) <i>Magnaporthe</i> (iii) <i>Rhizoctonia</i> (iv) <i>Fusarium</i>	K1	CO2
	4	Interpret the role of the sori found on the underside of <i>Adiantum</i> (i) Water absorption (ii) Nutrient storage (iii) Spore production (iv) Photosynthesis	K2	CO2
3	5	Tell the characteristic feature of subclass Gamopetalae. (i) Presence of perianth (ii) Petals that are free (iii) United petals (iv) Absence of petals	K1	CO3
	6	Relate the followings with fruit type of Rutaceae family. (i) Hesperidium (ii) Drupe (iii) Pome (iv) Pepo	K2	CO3
4	7	What is the name of Acanthaceae family's characteristic seed dispersal method uses a hook-like structure. (i) Stamen (ii) Pistil (iii) Sepal (iv) Jaculator	K1	CO4
	8	Show the unique floral structure in orchids formed by the fusion of stamens and style. (i) Gynostemium (ii) Labellum (iii) Spur (iv) Corona	K2	CO4
5	9	Where does the light reaction of photosynthesis occur in plant cells? (i) Stroma (ii) Chloroplast envelope (iii) Cytoplasm (iv) Thylakoid membrane	K1	CO5
	10	Infer the effect of auxin on plant stem growth based on its role as a growth hormone: (i) Elongation (ii) Inhibition (iii) Hardening (iv) Wilting	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

 $(5 \times 7 = 35)$

Module No.	Question No.	Question	K Level	CO
1	11.a.	Examine the structure of <i>Oscillatoria</i> and describe the key features of filamentous thallus. (OR)	K4	CO1
	11.b.	Inspect how asexual reproduction occurs in <i>Albugo</i> .		
2	12.a.	List the symptoms and control measures of Tikka leaf spot disease. (OR)	K4	CO2
	12.b.	Distinguish the internal structure of the coralloid root of <i>Cycas</i> .		
3	13.a.	Evaluate the economic importance of the Brassicaceae family (OR)	K5	CO3
	13.b.	Interpret the floral characters of Caesalpiniaceae with formula and diagram.		
4	14.a.	Explain the vegetative characters of family Asclepiadaceae. (OR)	K5	CO4
	14.b.	Assess the economic importance of the family Arecaceae.		
5	15.a.	Discuss the anaerobic respiration. (OR)	K6	CO5
	15.b.	Elaborate the physiological role of cytokinins.		

SECTION - C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

 $(3 \times 10 = 30)$

Module No.	Question No.	Question	K Level	CO
1	16	Analyze the vegetative and reproductive structure of <i>Volvox</i> .	K4	CO1
2	17	Examine the sexual reproduction of <i>Anthoceros</i> with diagrams.	K4	CO2
3	18	Interpret the morphological characters of family Rubiaceae.	K5	CO3
4	19	Explain the Identification characters and economic importance of Euphorbiaceae.	K5	CO4
5	20	Discuss the Calvin cycle with diagram.	K6	CO4