QP Code: R253G049 | Reg. No | | | | | | | | | | | AY 24

Gandhi Institute of Engineering and Technology University, Odisha, Gunupur
(GIET UNIVERSITY)

M.Sc. (Third Semester – Regular) Examinations, December – 2025

24MPSPC23001 - Plant Morphology and Reproduction

(Life Science - Plant Science)

Time: 3 hrs | Maximum: 60 Marks

Answer ALL questions
(The figures in the right-hand margin indicate marks)

PART – A **(2 x 5 = 10 Marks)**

Q.1. Answer ***ALL*** questions	CO #	Blooms Level
a. What is meant by thallus organization in algae?	CO1	K2
b. Define parasexual cycle.	CO2	K1
c. What is a stele?	CO3	K3
d. Why are cycads considered "living fossils"?	CO3	K4
e. Give any two economic uses of Rosaceae.	CO4	K2

PART – B **(10 x 5 = 50 Marks)**

Answer ***ALL*** the questions	Marks	CO #	Blooms Level
2. a. Discuss classification of algae.	5	CO1	K2
b. Write economic importance of algae in agriculture and environment.	5	CO2	K1
(OR)			
c. Explain how algae serve as indicators of environmental pollution.	5	CO1	K4
d. Describe the role of algae in biotechnological industries with reference to biofertilizers and biofuels.		CO1	K2
3.a. Discuss the characteristics of algae and they are differing from algae.	5	CO2	K3
b. Describe sexual reproduction in fungi with suitable diagrams.	5	CO2	K2
(OR)			
c. Explain the degeneration of sexuality in Ascomycetes.	5	CO1	K3
d. Write a note on sex hormones in fungi with examples.	5	CO3	K2
4.a. Explain how Anthocerotales show its intermediate nature between bryophytes and pteridophytes.	5	CO3	K4
b. Write the general characteristics of pteridophytes and outline any one classification system.	5	CO2	K2
(OR)			
c. Elaborate on the economic importance of pteridophytes.	5	CO4	K2
d. Describe affinities and differences between pteridophytes and gymnosperms.	5	CO4	K3
5.a. Discuss the geological eras and origin of plants.	5	CO1	K1
b. Explain why *Cycadales* are considered relics of ancient gymnosperms with	5	CO3	K2

examples.

(OR)

c.	Discuss the angiosperm characters exhibited by Gnetales.	5	CO3	K4
d.	Explain the process of fossilization.	5	CO3	K2
6.a.	Discuss the major theories related to the origin of angiosperms.	5	CO4	K3
b.	Compare and contrast the Bentham & Hooker and Engler & Prantl systems of classification.	5	CO4	K1

(OR)

c.	Write the systematic position and medicinal importance of Apocynaceae.	5	CO4	K2
d.	Describe the salient features of Poaceae and their evolutionary trends.	5	CO4	K3

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