

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
MSc DEGREE EXAMINATION DECEMBER 2025
(First Semester)

Branch- ZOOLOGY

ECOLOGY

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	Which of the following is the most stable ecosystem? a) Grass land b) Desert c) Ocean d) Mountain	K1	CO1
	2	Energy flow in an ecosystem is a) Unidirectional b) Bidirectional c) Multidirectional d) All the above	K2	CO1
2	3	The ecological succession on sand is called as a) Xerosere b) Psammosere c) Hydrosere d) Halosere	K1	CO2
	4	Which of the following processes helps ecosystems maintain homeostasis? a) Negative feedback mechanisms b) Complete species extinction c) Unlimited resource consumption d) Sudden environmental changes	K2	CO2
3	5	What is the primary factor that limits population growth in nature? a) Unlimited resources b) Abundance of food c) Predation and disease d) High birth rates	K1	CO3
	6	The term 'carrying capacity' in population ecology refers to a) The genetic diversity in a population b) The number of offspring produced by an individual c) The rate at which a population grows d) Maximum number of individuals in an environment can sustain	K2	CO3
4	7	Nitrogen fixation is the process by which a) nitrogen gas is converted to ammonia b) ammonia is converted to nitrate c) nitrogen is released back in the atmosphere d) plants absorb nitrogen gas directly from air	K1	CO4
	8	The conversion of nitrate into nitrogen gas and released into the atmosphere is called as a) nitrification b) Denitrification c) nitrogen fixation d) ammonification	K2	CO4
5	9	The wildlife protection Act in India was enacted in _____ a) 1970 b) 1976 c) 1972 d) 1980	K1	CO5
	10	_____ is the common method used for disposal of hazardous waste a) Composting b) Landfilling c) Open dumping d) Incineration	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.	Describe the importance of energy flow in ecosystem.	K2	CO1
		(OR)		
	11.b.	Explain the measurement of productivity in tropical ecosystem.		
2	12.a.	Explore the types of competition and their influence in an ecosystem community.	K3	CO2
		(OR)		
	12.b.	Expose the importance and consequences of removing a keystone species.		
3	13.a.	Detect the mechanisms and importance of population growth.	K4	CO3
		(OR)		
	13.b.	Explain the structural characteristics and applications of density and indices.		
4	14.a.	Explain the non-renewable energy resources in India.	K5	CO4
		(OR)		
	14.b.	Estimate the wetlands in India.		
5	15.a.	Summarize the methods of solid waste management.	K6	CO5
		(OR)		
	15.b.	Explain the types and importance of biological indicators.		

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	Give an account on the tropic structure in aquatic ecosystem.	K2	CO1
2	17	Explore the types of community succession in an ecosystem.	K3	CO2
3	18	Explain in detail the human population control.	K4	CO3
4	19	Summarize the applications of GIS in oceanography.	K5	CO4
5	20	Specify the methods of biodiversity conservation.	K6	CO5

Z-Z-Z END