

**PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)**

**MSc DEGREE EXAMINATION DECEMBER 2023  
(First Semester)**

Branch - ENVIRONMENTAL SCIENCE

**ECOLOGY AND SUSTAINABLE DEVELOPMENT**

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 is considered as both carnivores and omnivores ? a. Producers                      b. Consumers c. Primary consumers              d. Secondary consumers	K2	CO1
	2	Who formulated the ecological pyramids? a. Charles Darwin                  b. Raymond Lindemann c. Charles Elton                      d. Gregor Mendel	K1	CO1
2	3	Why is it beneficial for plants to be allelopathic? a. It increases competition for resources b. It decreases competition for resources c. It is not beneficial to plants d. It helps the farmers	K2	CO1
	4	Show the process of successful establishment of species in a new area is known as a. Climax              b. Sere              c. Ecesis              d. Invasion	K2	CO2
3	5	What is the largest taiga called? a. Boreal Forest                      b. Evergreen Forest c. Shrub Lands                        d. Greenwich	K2	CO3
	6	Choose from the below answer: Cryopreservation is a technique used to preserve biodiversity by storing a. Live organisms in their natural habitats b. DNA and genetic material of endangered species c. Fossils of extinct species d. Soil samples from various ecosystems	K2	CO3
4	7	"Leave no one behind" is the agenda of a. Agenda 2030              b. WEF              c. DSN              d. UNEP	K1	CO3
	8	What is the first goal of Sustainable Development Goal? a. Good Health & Well-being              b. Zero Hunger c. End Poverty                                  d. Gender Equality	K1	CO4
5	9	World summit on Sustainable Development was held at a. South Africa, 2002                      b. USA, 2005 c. England, 2020                              d. Brazil, 2005	K1	CO4
	10	Who among the following was associated with Bishnoi Movement? a. Gaura Devi                                  b. Amrita Devi c. Govind Singh Rawat                      d. Rachel Carson	K1	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.	List out the importance of hydrosphere with illustration.	K2	CO1
	(OR)			
	11.b.	Analyze the structure and function of ecosystem.		
2	12.a.	Discuss the role of population density and carrying capacity in the strategies of r and k-selected species.	K3	CO2
	(OR)			
	12.b.	Develop the intraspecific interaction with two examples.		
3	13.a.	Elaborate the role of national parks in biodiversity conservation.	K3	CO3
	(OR)			
	13.b.	How does the IUCN's Red List assess the conservation status of a species? Discuss.		
4	14.a.	Explain sustainable development and its scope and significance in ecological conservation.	K4	CO4
	(OR)			
	14.b.	Explain in detail about the three pillars of sustainable development.		
5	15.a.	Analyze the 2030 Agenda for Sustainable Development and its primary goals.	K4	CO5
	(OR)			
	15.b.	Conclude that the right to breathe protests, particularly concerning air quality and public health concerns.		

**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	Construct the energy flow diagram with model ecosystem.	K5	CO1
2	17	Analyze the significance of ecological succession in an environment.	K4	CO2
3	18	Distinguish between brackish environment from freshwater and marine environments with suitable examples.	K4	CO3
4	19	Develop a detail account on Land Use Policy for India.	K3	CO4
5	20	Discuss in detail about the NBA and Save Silent Valley Movement.	K3	CO5

Z-Z-Z

END