

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2024
(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	_____ influences the metabolic rates of organisms, affecting their ability to carry out biochemical reactions efficiently. A. Temperature B. Air C. Water D. Sunlight	K1	CO1
	2	In grassland ecosystem, pyramid of energy is A. Inverted B. Upright C. Mixed D. Spherical	K2	CO2
2	3	Which of the following is not a feature of 'r' selected species? A. Reproduce quickly B. The low survival rate of progenies C. Reproduce a large number of progenies D. Paternal care	K1	CO2
	4	The number of individuals living in a unit area is called A. Density B. Natality C. Mortality D. Dispersion	K2	CO2
3	5	Which is the reason for highest biomass in aquatic ecosystem? A. Benthonic and brown algae B. Sea grass, and slime molds C. Nanoplankton, blue green algae, green algae D. Diatoms	K2	CO3
	6	What is another name for the savanna biome? A. Temperate grassland B. Tundra C. Taiga Forest D. Tropical grasslands	K1	CO3
4	7	When did the phrase "Sustainable Development" first appear? A. 1987 B. 1980 C. 1978 D. 1992	K1	CO4

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4	8	Initiatives for implementing rural development include A. Improving public health B. Setting up facilities for agricultural research C. Infrastructure development in rural areas D. All of the above	K2	CO4
5	9	Sustainable Development Goals (SDGs) is related with A. No Hunger B. No Poverty C. Life on hand D. Climate Action	K1	CO5
	10	Who has started Appiko movement? A. Pandurang Hegde B. Sunderlal Bahuguna C. Medha Patkar D. Baba Amte	K1	CO5

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.	Classify the structure and composition of atmosphere with neat sketch.	K4	CO4
		(OR)		
	11.b.	Analyze the productivity of ecosystem with its types.		
2	12.a.	Explain about the Commensalism and Mutualism with examples.	K5	CO5
		(OR)		
	12.b.	Differentiate between ecotone and ecophene.		
3	13.a.	List out the ecosystem services and its importance.	K4	CO4
		(OR)		
	13.b.	Describe the marine ecosystem with the characteristics and functions.		
4	14.a.	Outline your views on global sustainable development practices.	K5	CO3
		(OR)		
	14.b.	Critically analyze the various sustainable agricultural practices.		
5	15.a.	Discuss the case study Tehri dam project and its benefits.	K5	CO5
		(OR)		
	15.b.	Assess the significance of 5P' in sustainable development.		

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	Explain detail about the role of C cycle on environment.	K5	CO4
2	17	Compare the seral stages of ecological succession.	K4	CO4
3	18	Elaborate the various ex-situ conservation strategies of biodiversity resources.	K5	CO5
4	19	Compile the four model of sustainable development.	K5	CO5
5	20	List out the sustainable development goals and how are they incorporating these goals into the policies?	K4	CO5

Z-Z-Z END