U.S.N.										

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

January / February 2025 Semester End Main Examinations

Programme: B.E. **Semester: VII**

Branch: Institutional Elective **Duration: 3 hrs.**

Course Code: 22BT7OEEEM **Max Marks: 100**

Course: Ecology and Environmental Management

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

			UNIT - I	*CO*	*PO*	Marks
1	a)		Categorize various types of ecosystems exists on earth with examples.	*CO 1,2*	*PO7,12*	**10**
	b)		Consider a scenario where very early stages of earth and an ecosystem destroyed by fire. What kind of succession takes place in both cases? Describe each type.	*CO 1,2*	*PO7,12*	**10**
			OR			
2	a)		Pyramids does exist in ecology to represent various ecological concepts. Substantiate by listing various ecological pyramids with examples and illustrations	*CO 1,2*	*PO7,12*	**10**
	b)		Population in ecosystem is controlled by various laws of environment. Identify and explain each with neat illustrations.	*CO 1,2*	*PO7,12*	**10**
			UNIT - II			
3	a)		A population has certain attributes. Justify this statement by listing various attributes of a population and explain each	*CO 1,2*	*PO7,12*	**10**
	b)		Calculate Simpson biodiversity index for each and comment on which area has maximum diversity	*CO 1,2*	*PO7,12*	**10**

Organisms	Location 1	Location 2	Location 3
A	40	15	10
B	50	20	30
C	20	30	10
D	40	50	20

			OR			

	4	a)	Population growth in an ecosystem is governed by growth laws. Justify this statement by listing growth models with neat figures.	*CO 1,2*	*PO7,12*	**10**
		b)	Write short notes on: 1. Simpsons index and its significance 2. dispersion of population	*CO 1,2*	*PO7,12*	**10**
			UNIT - III			
	5	a)	Differentiate between R and K selected species with examples.	*CO 3*	*PO 7,12*	**10**
		b)	Categorize various types of symbiotic relationships with examples.	*CO3*	*PO 7,12*	**10**
			OR			
	6	a)	Write briefly on social parasitism.	*CO 3*	*PO 7,12*	**10**
		b)	Categorize various types of predation types with examples.	*CO3*	*PO 7,12*	**10**
			UNIT - IV			
	7	a)	Design a suitable conservation strategy for protection of rare or endangered plants and animals with suitable examples.	*CO 3*	*PO 7,12*	**10**
		b)	List any three success stories of flora and fauna conservation.	*CO3*	*PO 7,12*	**10**
			OR			
	8	a)	A soil and water ecosystem are contaminated by toxic substances or metals or oil spills. How do you bioremediate these environments? Design a strategy for each.	*CO 3*	*PO 7,12*	**10**
		b)	What is bio indicator? Explain the role of lichens and frogs as bio indicators .	*CO3*	*PO 7,12*	**10**
			UNIT - V			
	9	a)	Industrialization and urbanization have both positive and negative impacts. Justify this statement by writing positive and negative aspects of each.	*CO4*	*PO7,12*	**10**
		b)	Write the salient features of Paris environmental summit.	*CO4*	*PO7,12*	**10**
			OR			
	10	a)	An industry (especially major) cannot be started just like that without any environmental impact assessment? Justify this statement by writing procedures /process involved.	*CO4*	*PO7,12*	**10**
		b)	Write the salient features of Wild life act of India.	*CO4*	*PO7,12*	**10**

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