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: 19BT7IEEEM **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)		Explain the theory of tolerance and limiting factors in the context of environmental science with examples.	*CO1*	*PO 1*	**10**
	b)		Classify various types of ecosystems with suitable examples.	*CO1*	*PO1*	**10**
			OR			
2	a)		Compare and contrast primary and secondary succession. How do they differ in terms of community development over time?	*CO1*	*PO 1*	**10**
	b)		Add short notes on species, habitat, niche, Community and biosphere with suitable examples.	*CO1*	*PO 1*	**10**
			UNIT - II			
3	a)		Explain the significance of age ratio in a population and its potential impact on population dynamics.	*CO2*	*PO1*	**6**
	b)		Differentiate between exponential and logistic growth, and describe the role of carrying capacity in logistic growth.	*CO2*	*PO1*	**7**
	c)		Devise a hypothetical scenario involving social parasitism. Explain how the host population might be affected and the strategies employed by social parasites.	*CO2*	*PO1*	**7**
			OR			
4	a)		Define population density and provide an example.	*CO2*	*PO2*	**6**
	b)		What is meant by the age ratio in a population, and why is it important for ecological studies?	*CO2*	*PO2*	**7**
	c)		Differentiate between exponential and logistic growth in population dynamics.	*CO2*	*PO2*	**7**
			UNIT - III			
5	a)		Name the major phytogeographic regions in the world and provide a brief description of each.	*CO3*	*PO2*	**10**
	b)		Outline the concept of phytogeography and its significance in understanding the distribution of plant species.	*CO3*	*PO2*	**10**

			OR			
	6	a)	Apply the principles of phytogeography to explain the distribution of major plant communities in a In India.	*CO3*	*PO2*	**10**
		b)	Discuss major biomes of thew world with suitable examples.	*CO3*	*PO2*	**10**
			UNIT - IV			
	7	a)	Describe the role of biofertilizers in sustainable agriculture.	*CO4*	*PO3*	**6**
		b)	What is the purpose of germplasm banks? Discuss with suitable case studies?	*CO4*	*PO3*	**7**
		c)	Provide an example of a sustainable utilization strategy.	*CO4*	*PO3*	**7**
			OR			
	8	a)	Outline the concept of sustainable utilization in the context of natural resources.	*CO4*	*PO3*	**6**
		b)	Differentiate between endangered and threatened species with real world examples.	*CO4*	*PO3*	**7**
		c)	Apply the principles of bioremediation to clean up an oil spill.	*CO4*	*PO3*	**7**
			UNIT - V			
	9	a)	Discuss the positive and negative impacts of industrialization and urbanization.	*CO5*	*PO2*	**10**
		b)	Classify various types of pollution with suitable examples.	*CO5*	*PO2*	**10**
			OR			
	10	a)	Analyze the components of an environmental impact assessment (EIA). Why is it essential for development projects?	*CO5*	*PO2*	**10**
		b)	Discuss the salient features of wild life act of India.	*CO5*	*PO2*	**10**

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