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

Autonomous Institute Affiliated to VTU

July 2023 Semester End Main Examinations

Programme: B.E.

Branch: Civil Engineering

Course Code: 21CV8PEIWM

Course: Integrated Watershed Management

Semester: VIII

Duration: 3 hrs.

Max Marks: 100

Date: 08.07.2023

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 concept of catchment and its importance.	CO1	PO1	10
		b)	Illustrate the conjunctive use of water resources and rainwater harvesting.	CO1	PO1	10
			UNIT - II			
	2	a)	Describe the watershed modeling approaches.	CO2	PO1	10
		b)	Interpret the different hydrological processes with a neat sketch.	CO2	PO1	10
			OR			
	3	a)	Explain the steps in the rainfall-runoff modeling. Elaborate the SCS-CN method for runoff modelling.	CO2	PO1	10
		b)	Describe the estimation of the soil erosion process by an empirical method.	CO2	PO1	10
			UNIT - III			
	4	a)	Discuss the important water quality parameters and elaborate the water quality monitoring procedure.	CO3	PO1	10
		b)	Discuss environmental guidelines for water quality.	CO3	PO1	10
			UNIT - IV			
	5	a)	Discuss the parameters involved in flood estimation and management.	CO4	PO1	10
		b)	Discuss flood routing through channels and reservoir.	CO4	PO1	10
			OR			

6	a)	Enumerate the causes of drought and discuss the drought classification. Illustrate drought assessment and classification.	CO4	PO1	10
	b)	Discuss the impact of drought. Also, elaborate on the drought assessment indices.	CO4	PO1	10
		UNIT - V			
7	a)	Interpret the remote sensing and GIS applications in watershed management.	CO1	PO1	10
	b)	Describe the role of the decision support system in watershed management.	CO1	PO1	10

B.M.S.C.E. - EVEN SEM 2022-23