

# CBCS SCHEME

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BCV405D

## Fourth Semester B.E./B.Tech. Degree Examination, June/July 2025 Watershed Management

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.  
2. M : Marks , L: Bloom's level , C: Course outcomes.*

| Module – 1 |    |   |    | M  | L   | C |
|------------|----|---|----|----|-----|---|
| Q.1        | a. | What is a watershed? What are the different categories of watershed?                  | 10 | L2 | CO1 |   |
|            | b. | Discuss the importance of hydrology in watershed management.                          | 10 | L2 | CO1 |   |
| OR         |    |   |    |    |     |   |
| Q.2        | a. | Describe Distribution of surface and ground water availability on the earth.          | 12 | L2 | CO1 |   |
|            | b. | Explain effect of Human influence in the Water Resource System.                       | 8  | L2 | CO1 |   |
| Module – 2 |    |   |    |    |     |   |
| Q.3        | a. | Define IWRM (Integrated Water Resource Management). Discuss three principles of IWRM. | 8  | L2 | CO2 |   |
|            | b. | Explain morphometric analysis of watershed.   | 12 | L2 | CO2 |   |
| OR         |    |   |    |    |     |   |
| Q.4        | a. | Discuss different watershed management practices in Arid and Semi-Arid Regions.       | 10 | L2 | CO2 |   |
|            | b. | What are the long term and short term strategic planning of watershed management.     | 10 | L2 | CO2 |   |
| Module – 3 |    |   |    |    |     |   |
| Q.5        | a. | Explain different perspective on Recycle and Reuse of Water Resources.                | 8  | L2 | CO3 |   |
|            | b. | What is wastewater Reclamation? Explain.  | 6  | L2 | CO3 |   |
|            | c. | Write a note on Water Conservation.   | 6  | L2 | CO3 |   |
| OR         |    |   |    |    |     |   |
| Q.6        | a. | Discuss the importance of water harvesting in water conservation.                     | 10 | L2 | CO3 |   |
|            | b. | Explain different Rainwater Harvesting structures.                                    | 10 | L2 | CO3 |   |
| Module – 4 |    |   |    |    |     |   |
| Q.7        | a. | What are the different methods of integrated watershed management?                    | 7  | L2 | CO4 |   |
|            | b. | Write a note on Soil Erosion and Water Conservation.                                  | 7  | L2 | CO4 |   |

|                  |    |   |    |    |     |
|------------------|----|---|----|----|-----|
|                  | c. | How integrated farming will be helpful in water management. Explain.            | 6  | L2 | CO4 |
| <b>OR</b>        |    |   |    |    |     |
| Q.8              | a. | Explain about Land capability classes along with their characteristics.         | 10 | L2 | CO4 |
|                  | b. | Discuss natural resource management under watershed approach.                   | 10 | L2 | CO4 |
| <b>Module -5</b> |    |   |    |    |     |
| Q.9              | a. | What is Remote sensing? Discuss role of Remote Sensing in watershed management. | 12 | L2 | CO5 |
|                  | b. | Discuss GIS and its components.   | 8  | L3 | CO5 |
| <b>OR</b>        |    |   |    |    |     |
| Q.10             | a. | Explain Role of decision support system in watershed management.                | 10 | L2 | CO5 |
|                  | b. | Discuss watershed characteristics of Coastal Region.                            | 10 | L2 | CO5 |

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