

Seat  
No.

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मजल - 066

**ELECTIVE - I**  
**Water Shed Management**  
**(New) (1252)**

P. Pages : 2

Time : Three Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Solve **any two** questions from each unit.
5. Use of non programmable calculator is allowed.
6. Draw neat sketches wherever necessary.
7. Assume suitable data, if necessary.

**UNIT - I**

1. a) Explain the watershed characteristics in detail. 10  
b) Explain about network and channel morphology. 10  
c) Explain significance of watershed based development. 10

**UNIT - II**

2. a) Explain Hydrologic cycle with neat sketch. 10  
b) Explain water balance in detail. 10  
c) The normal precipitation of five rain gauge stations P,Q,R,S and T are respectively 125, 102, 76, 113 and 137 cm. During a particular storm the precipitation recorded by stations P,Q,R,S are 13.2, 9.2, 7.8 and 10.2 respectively. The instrument at station T was inoperating during that storm. Estimate the rainfall at station T during that storm.

**UNIT - III**

3. a) What are the objectives of watershed management. 10

- b) Explain about land capability & classification in detail. 10
- c) Explain about watershed resource appraisal. 10

**UNIT - IV**

- 4. a) Explain about point source pollution in detail. 10
- b) Explain soil and water conservation measures. 10
- c) Explain Benefit - Cost Analysis. 10

**UNIT - V**

- 5. a) Explain Urban watershed management goals & strategies. 10
- b) Explain about Green Roof in detail. 10
- c) Explain : 10
  - i) Rain water harvesting from urban structures.
  - ii) Wet weather flow.

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