

(Following Paper ID and Roll No. to be filled in your  
Answer Books)

**Paper ID : 197855**

Roll No. 

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**B.TECH.**

**Theory Examination (Semester-VIII) 2015-16**

**INTEGRATED WATERSHED MANAGEMENT**

***Time : 3 Hours***

***Max. Marks : 100***

**Section-A**

**Q1. Attempt all parts. All parts earn equal marks. Write  
answer of each part in short. (2×10=20)**

- (a) Define watershed.
- (b) How is a watershed is classified based on their size?
- (c) What is rainwater harvesting?
- (d) What is the purpose of percolation tank?
- (e) List out the types of erosion.

- (f) What are the factors that affecting erosion?
- (g) Mention the classifications of land area based on their use.
- (h) What will be effects of land degradation?
- (i) List out the steps involved in planning a watershed management.
- (j) When should a watershed plan be prepared?

### Section-B

**Q2. Attempt any 5 questions from this section. (10×5=50)**

- (a) What are the objectives of integrated watershed management approach? Explain in detail.
- (b) List out the steps involved in applying watershed management practices. Explain some of the practices that can be adopted for watershed management.
- (c) Explain any two methods of water harvesting.

- (d) Briefly describe the techniques involved in soil-moisture conservation.
- (e) How will you control erosion? Explain the various methods.
- (f) How to estimate the soil loss? Write the universal soil loss equation and explain in detail.
- (g) What are the causes of land degradation? Give some solutions for land degradation.
- (h) How will you develop a local watershed action plan?

### Section-C

**Note: Attempt any 2 questions from this section. (15×2=30)**

- Q3. (a) Discuss in detail about the concept of watershed. Illustrate important watershed characteristics.
- (b) What do you mean by artificial recharge? In what ways, artificial recharge can be done?
- Q4. (a) What are the forms of water erosion? How it affects the soil fertility? Explain in detail.
- (b) Define land. Explain their functions.

- Q5. (a) Explain the consequences of deforestation.
- (b) Explain how people's participation is made and why it is important for watershed management?

