

Code No: RT42013D

**R13**

**Set No. 1**

**IV B.Tech II Semester Supplementary Examinations, July/August - 2017**

**WATER SHED MANAGEMENT**

**(Civil Engineering)**

**Time: 3 hours**

**Max. Marks: 70**

*Question paper consists of Part-A and Part-B*

*Answer ALL sub questions from Part-A*

*Answer any THREE questions from Part-B*

\*\*\*\*\*

**PART-A (22 Marks)**

1. Write short notes on the following
  - a) Objectives of watershed management [4]
  - b) Geomorphologic Characteristics of watershed [4]
  - c) Brushwood dam, Gabion and gully control [4]
  - d) Farm ponds with neat sketch. [4]
  - e) Land grading operation. [3]
  - f) Application of watershed models. [3]

**PART-B (3x16 = 48 Marks)**

2.
  - a) Briefly explain the concept and principles of watershed management system. [8]
  - b) Explain in detail about the integrated watershed management approach? [8]
3. Explain in detail about the different characteristics of watersheds [16]
4.
  - a) Briefly explain the classification of soil erosion. [8]
  - b) Discuss the factors affecting and its causes of soil erosion [8]
5.
  - a) Distinguish between surface flow harvesting and subsurface flow harvesting. [8]
  - b) Write short note on percolation tanks. [8]
6. Define Land use and Land capability? What are the different objectives of Land capability classification? Explain in detail about the classification of land capability? [16]
7.
  - a) Write a note on history and evolution of watershed modeling. Mention different models that are being developed. [8]
  - b) Write short notes on advances of watershed models. [8]

