

Code No: RT41358

R13**Set No. 1**

IV B.Tech I Semester Supplementary Examinations, February/March - 2018

WATERSHED MANAGEMENT

(Agriculture 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. a) What is a watershed? [2]
- b) Explain different methods of geometric representation of watersheds. [4]
- c) What are the effects of erosion on land fertility and land capability. [4]
- d) Give the difference b/w dam and check dam. [3]
- e) List out the different objectives of Land capability classification. [4]
- f) Write a short note on social forestry and afforestation. [5]

PART-B (3x16 = 48 Marks)

2. a) Explain the Necessity of Watershed Management in India. & list out the Principles of Watershed Management. [8]
- b) Explain shape characteristics of Watershed with diagrams. [8]
3. a) Illustrate the manual watershed delineation step by step. [8]
- b) Explain in detail Physiographic characteristics and Climatic characteristics of watershed. [8]
4. a) List out the climatic factors that influence the Erosion. [8]
- b) Explain in detail various erosion control measures. [8]
5. a) List out the advantages and disadvantages of RWH. [6]
- b) Explain Rainwater Harvesting with at least one successful case study. [10]
6. a) Write a short note on Reclamation of saline and alkaline soils. [8]
- b) What do you understand by biological or vegetative measures in a watershed? Describe two such important measures. [8]
7. a) Discuss about the role of ecosystem and bio-mass management. [8]
- b) Explain in detail about reservoir routing. [8]