

Code No: **R42015**

R10

Set No. 1

IV B.Tech II Semester Regular/Supplementary Examinations, April - 2015

WATER SHED MANAGEMENT

(Civil Engineering)

Time : 3 hours

Max. Marks: 75

**Answer any Five Questions
All Questions carry equal marks**

- 1 Explain the various parameters which influencing the development of water Shed in detail. Explain shape characteristics with diagrams. [15]
- 2 Explain estimation of soil loss due to erosion in detail. [15]
- 3 Explain various methods of runoff calculation. [15]
- 4 What is terracing? Explain bench terraces in detail. [15]
- 5 What are harvesting structures? Explain any three in detail with figures. [15]
- 6 What are the methods of gully control? Explain at least any three methods in detail. [15]
- 7 How to delineate watersheds in traditional methods and by using GIS & Remote sensing methods? [15]
- 8 Detail various erosion control measures? [15]

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Set No. 2

IV B.Tech II Semester Regular/Supplementary Examinations, April - 2015

WATER SHED MANAGEMENT

(Civil Engineering)

Time : 3 hours

Max. Marks: 75

**Answer any Five Questions
All Questions carry equal marks**

- 1 a) What is the role of ecosystem? [8]
b) What is social forestry and afforestation? [7]
- 2 Explain various methods of runoff calculations. [15]
- 3 Explain the various parameters which influencing the development of water Shed in detail with emphasis on socio-economic characteristics. [15]
- 4 Explain types of erosion in detail. [15]
- 5 “GIS & Remote sensing will help for better integrated management of watershed” Evaluate this statement. [15]
- 6 What is rainwater harvesting? Explain any three harvesting structures in detail with figures. [15]
- 7 Explain people’s participation, preparation of action plan for water shed management? [15]
- 8 Explain ploughing, furrowing, trenching, bunding, terracing in detail. [15]

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Set No. 3

IV B.Tech II Semester Regular/Supplementary Examinations, April - 2015

WATER SHED MANAGEMENT

(Civil Engineering)

Time : 3 hours

Max. Marks: 75

**Answer any Five Questions
All Questions carry equal marks**

- 1 What are the objectives and need for watershed development in India? [15]
- 2 Explain at least two types of dams to control erosion in detail with sketches. [15]
- 3 a) What is ecosystem? [8]
b) What is crop husbandry and sustainable agriculture? [7]
- 4 What is artificial recharge? Explain any three harvesting structures in detail with figures. [15]
- 5 Explain Universal soil loss equation in detail. [15]
- 6 Explain various methods of runoff calculation. [15]
- 7 Explain the various parameters which influencing the development of water Shed in detail with emphasis on geology. [15]
- 8 How integrated management of watershed can be achieved by using GIS & Remote sensing techniques? [15]

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Set No. 4

IV B.Tech II Semester Regular/Supplementary Examinations, April - 2015

WATER SHED MANAGEMENT

(Civil Engineering)

Time : 3 hours

Max. Marks: 75

**Answer any Five Questions
All Questions carry equal marks**

- 1 Illustrate with neat sketches to achieve Integrated watershed management system? [15]
- 2 Explain the various parameters which influencing the development of water Shed in detail with emphasis on land use. [15]
- 3 Illustrate Runoff calculation methods for various purposes. [15]
- 4 Detail various erosion control measures? [15]
- 5 Explain effects of erosion on land fertility and land capability in detail. [15]
- 6 What soil moisture conservation? Explain any three harvesting structures in detail with figures. [15]
- 7 What are the activities for planning of watershed management and its administrative requirements? [15]
- 8 a) What is inter, mixed and strip cropping? [8]
b) What is cropping pattern and horticulture? [7]