

**320850(20)**

**B. E. (Eighth Semester) Examination,  
April-May 2021**

**(New Scheme)**

**(Civil Engg. Branch)**

**WATER SHED MANAGEMENT**

*Time Allowed : Three hours*

*Maximum Marks : 80*

*Minimum Pass Marks : 28*

*Note : Part (a) is compulsory from each unit and  
solve any two out of (b), (c) and (d).*

**Unit-I**

1. (a) Define Watershed Management.

2

- (b) What are the various necessary conditions for plant growth in watershed? 7
- (c) Explain watershed hydrology and describe various problems related with it in watershed. 7
- (d) Describe in detail various characteristics of a watershed. 7

**Unit-II**

2. (a) Define land capability rating. 2
- (b) Explain the following terms : 7
- (i) Broad Beds
  - (ii) Contour Bund
  - (iii) Bench Terracing
  - (iv) Percolation Pond
- (c) What are the various fundamental surveys required for rationalizing land use in a watershed? 7
- (d) What do you mean by land capability classes in a watershed? 7

**Unit-III**

3. (a) Define Mulching. 2
- (b) What are various principles of water harvesting and conservation? 7
- (c) Define following terms : 7
- (i) Splash erosion
  - (ii) Sheet erosion
  - (iii) Rill erosion
  - (iv) Tunnel erosion
- (d) What are the various soil conservation strategies? 7

**Unit-IV**

4. (a) Define conservation farming. 2
- (b) Explain in detail socio economic surveying. 7
- (c) What are the various steps for watershed management planning? 7
- (d) Explain the role of GIS in watershed management. 7

## Unit-V

5. (a) Define mass wasting. 2
- (b) What do you mean by bad lands? How are they formed? 7
- (c) Explain various types of hill slope processes. 7
- (d) What are the various types of hill slope failures? 7