



**KERALA AGRICULTURAL UNIVERSITY**  
B. Tech. (Agrl. Engg.) 2021 Admission  
VI Semester Final Examination – June 2024

Lwre.3208

**Watershed Planning and Management (1+1)**

**Marks: 50**  
**Time: 2 hours**

**I**

**Fill in the blanks**

**(10x1=10)**

1. A watershed having area between 1 and 10 km<sup>2</sup> is termed as.....
2. Class II lands generally have gentle slope in the range of.....
3. Drainage density is the measure of .....of drainage spacing.
4. Hydrology is important for .....forecasting.
5. A.....survey of the entire watershed gives an idea of the relative erosion status of the sub-watersheds.

**State True or False**

6. A topographic map is two-dimensional representation of a portion of the three-dimensional surface of the earth.
7. Contour lines cross each other.
8. The objectives of watershed management planning is to control damaging runoff and degradation, and thereby conservation of soil and water.
9. Protection phase is third phase of watershed management.
10. Based on size, a small watershed has area of >250 km<sup>2</sup>.

**II**

**Write short notes on ANY FIVE of the following**

**(5x2=10)**

1. What are Class IV lands?
2. What is an agricultural watershed?
3. What are the different steps used in watershed planning process?
4. List the data required for watershed planning.
5. What are the benefits of watershed prioritization?
6. What are the basic principles of participatory rural appraisal?
7. What are the different sources of sediment generation?

**III**

**Answer ANY FIVE of the following**

**(5x4=20)**

1. Discuss the Problems and Constraints in Watershed Management.
2. Various sources of sediment yield and factors affecting sediment yield
3. What are the different objectives of watershed management?
4. Describe the use of hydro-meteorological data in hydrological characterization.
5. Discuss the different methods of determining priority of the sub-watersheds for treatment from soil erosion and sediment yield point of view.
6. Describe the components of integrated watershed management.
7. Discuss about participatory watershed management.

**IV**

**Write an essay on ANY ONE of the following**

**(1x10=10)**

1. Discuss about rainwater conservation through storage, operation and maintenance.
2. Explain the principles of cropping systems in watershed areas and type of farming, land management techniques which favours watershed hydrology.

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