



Lwre.3208

KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Agri. Engg) 2016 Admission
VI Semester Final Examination-June 2019

Watershed Planning and Management (1+1)

Marks: 50

Time: 2 hours

(10x1=10)

I Fill up the blanks

- 1 The ratio of the stream length and the watershed width is referred as _____
- 2 _____ is referred as the total length of streams of all the orders of the basin to the basin area
- 3 The form factor is expressed as a ratio of basin area to _____
- 4 Hydrology is important for _____ forecasting
- 5 _____ is a basic tool to evaluate the occurrence and movement of water through the natural environment

State True or False

- 6 Large watersheds are dominated by Overland flow
- 7 Stream orders are dimensionless terms
- 8 The shape of a watershed has a significant effect on the discharge pattern
- 9 Watershed delineation are drawing lines on a map to identify a watershed's boundaries
- 10 Contour bunding and gully plug yielded better water harvesting in urban areas

II Write Short notes on any FIVE of the following

(5x2=10)

- 1 Benefits of watershed
- 2 Activities of watershed management
- 3 Define hydrology and draw the hydrologic cycle with a neat sketch.
- 4 Why watershed planning is important and write down the characteristics of watershed planning
- 5 List out the importance of hydrology in watershed management
- 6 Discuss the need for water harvesting structures
- 7 Define sediment yield index and its importance

III Answer any FIVE of the following.

(5x4=20)

- 1 Objective and management practices of watershed
- 2 Problems and constraints in watershed management
- 3 Various sources of sediment yield and factors affecting sediment yield.

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- 4 In-situ rainwater conservation technologies and its advantage and disadvantages
- 5 Dry farming techniques in watershed areas and explain any two.
- 6 Integrated watershed management. Write about concept, components and advantages
- 7 Role of PRA in planning of watershed development activities

IV Answer any ONE of the following (1x10=10)

- 1
 - a. Explain the role of hydrologic data in Watershed planning
 - b. Explain the principles of cropping system in watershed areas and the types of farming which favours watershed hydrology
- 2
 - a. Discuss the soil and water conservation measures with neat sketches
 - b. Explain strategies for sustainable watershed development
