KERALA AGRICULTURAL UNIVERSITY

B.Tech.(Agri. Engg) 2016 Admission

VI Semester Final Examination-June 2019

Lwre.3208

Watershed Planning and Management (1+1)

Marks: 50

Time: 2 hours

I **Fill up the blanks** **(10x1=10)**

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.

P.T.O

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

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