



KERALA AGRICULTURAL UNIVERSITY
B. Tech. (Agrl. Engg.) 2020 Admission
VI Semester Final Examination – July 2023

Lwre.3208

Watershed Planning and Management (1+1)

Marks: 50
Time: 2 hours

- I Choose the correct answer (10x1=10)**
1. Watershed management implies.....
 - (a) area development
 - (b) development of economy of population
 - (c) development of land & water resources
 - (d) the practice of conservation of soil
 2. Small watersheds are those, in which the predominant flow is
 - (a) runoff
 - (b) overland flow
 - (c) base flow
 - (d) channel flow
 3. A reasonable size of watershed for agricultural development is,
 - (a) 100 ha
 - (b) 500 ha
 - (c) 2000 ha
 - (d) 10, 000 ha
 4. Degree of stream branching in a watershed is represented by
 - (a) stream density
 - (b) stream order
 - (c) stream frequency
 - (d) none of above
 5. The number of stream segments per unit area of watershed is known as.....
 - (a) stream density
 - (b) stream order
 - (c) stream frequency
 - (d) none of above
 6. Land use of occasional or limited cultivation is recommended for land capability class,
 - (a) II
 - (b) III
 - (c) IV
 - (d) VI
 7. Land use recommended for land capability class VIII, is
 - (a) wild life and recreation
 - (b) pasture and range management
 - (c) intensive cultivation
 - (d) occasional cultivation
 8. Among different soil groups, soils of Group A and Group D have runoff potential respectively of
 - (a) lowest and highest
 - (b) highest and lowest
 - (c) moderate and lowest
 - (d) moderate and highest

9. is the ratio of number of stream of any order to the number of stream of next lower order.
- (a) Bifurcation ratio
 - (b) Geometric number
 - (c) Ruggedness number
 - (d) none of above
10. is the ratio of basin area to the square of basin length.
- (a) Relief
 - (b) Geometric number
 - (c) Form factor
 - (d) none of above

II Write short notes on ANY FIVE of the following (5x2=10)

- 1. Land capability
- 2. Circulatory ratio
- 3. Elongation ratio
- 4. Form factor
- 5. Shape factor
- 6. Compactness coefficient
- 7. Second order stream

III Answer ANY FIVE of the following (5x4=20)

- 1. Describe in brief scope of watershed management.
- 2. Explain land capability classes under lands suitable for cultivation.
- 3. State the physical and geomorphologic characteristics associated with watersheds.
- 4. What are the steps in Watershed Planning Process?
- 5. Give the factors influencing prioritizing watersheds.
- 6. State the objectives of Watershed Management.
- 7. Describe in brief data required for Watershed Planning.

IV Write an essay on ANY ONE of the following (1x10=10)

- 1. Importance of water harvesting.
- 2. Use of Physiographical Data in Watershed Planning
