KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Agrl. Engg.) 2019 Admission
VI Semester Final Examination - June 2022

Lwre.3208 **Watershed Planning and Management (1+1)** **Marks: 50**
Time: 2 hours

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

1. Time of concentration of a drainage basin is the function of _____.
2. The planimeter measures _____.
3. When two second order streams join together, they form a stream of _____order.
4. Lysimeter is used to measure _____.
5. The vulnerability of the soil to get eroded is referred as _____.
6. Soil erosion by rain drops is referred as _____.

State True or False

7. Large watersheds are dominated by overland flow.
8. Stream orders are dimensionless terms.
9. The shape of a watershed has a significant effect on the discharge pattern.
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. Define Watershed delineation.
2. Discuss briefly water budgeting.
3. Discuss briefly the objectives of integrated watershed management.
4. Define sediment yield index.
5. Discuss briefly about watershed characteristics.
6. Discuss briefly the components of integrated watershed management.
7. Benefits of watershed

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

1. Discuss in detail the land capability classification.
2. Discuss in detail the community organization in watershed management.
3. Discuss in detail the dry farming technologies adopted in watershed areas.
4. Discuss in detail the various drainage line treatments adopted in watershed project with neat sketches.
5. Discuss briefly the effect of cropping systems on watershed hydrology.
6. Discuss in detail the watershed investigations for planning and development.
7. Discuss in detail the hydrologic data for watershed planning.

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

1. Discuss in detail the soil and moisture conservation technologies for watershed development with neat sketches wherever necessary.
2. Discuss in detail the steps involved in the preparation of detailed project report (DPR) for watershed projects.

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