



KERALA AGRICULTURAL UNIVERSITY
B. Tech. (Agri. Engg.) 2024 Admission
IV Semester Final Examination – July 2026

SWC 2205

Watershed Hydrology (2+1)

Marks: 50
Time: 2 hours

I Fill in the blanks (10x1=10)

1.is stream flow Vs time in chronological order.
2. The recurrence interval is also called as
3. Intensity of rainfall against time interval is called as
4. The accumulated precipitation against time is called as
5. What is value of class A land pan coefficient.....
- State True or False**
6. If the peak of unit hydrograph is 25 cumec, then peak of hydrograph producing 8 cm of runoff is 215 cumec, assuming a constant base flow of 15 cumec.
7. Direct runoff is the sum of overland flow, interflow and base flow .
8. A 2- hour unit hydrograph means that the stream flow is for two hours .
9. Stream gauging station should be located just upstream from the confluence of two streams
10. Theissen method is used for estimating runoff from watersheds.

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

1. Describe the procedure of using a current meter for measuring velocity in stream.
2. Describe the salient characteristics of precipitation in India.
3. Describe the different methods of recording type of rainfall.
4. Classify draught and describe agricultural draught in brief.
5. Describe a commonly used evaporimeter in brief.
6. Describe the factors affecting runoff coefficient (C) in rational formula.
7. Distinguish between hydraulic storage and hydrologic channel method of flood routing.

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

1. What is infiltration? Describe the factors affecting the infiltration capacity of area.
2. What do you mean draught? Describe metrological draught in brief.
3. What is hydrograph? Describe the components of hydrograph.
4. What do you understand by time of concentration of catchment? Describe briefly methods of estimation of time of concentration.
5. What is unit hydrograph? List the assumptions involved in the Unit hydrograph theory.
6. Explain the rational method of computing the peak discharge of a small catchment.
7. What is evapotranspiration? Describe the factors affecting on evapotranspiration process.

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

1. Describe the methods of runoff estimation in brief.
2. Explain the impact of draught on agricultural productivity and describe its management strategy.
