

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***UG/PG DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL/MAY 2026***Fourth Semester**Agricultural Engineering***UAIT24404 - HYDROLOGY AND WATER RESOURCES ENGINEERING***Regulations - 2024**Duration : 3 Hrs**Maximum : 100 Marks***PART - A (ANSWER ALL QUESTIONS) (Marks 10*2=20)**

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	Define Precipitation.	L1	1	2
2.	Enlist the various forms of precipitation.	L2	1	2
3.	What is base flow?	L1	2	2
4.	What are all the applications of unit hydrograph?	L2	2	2
5.	What do you understand by the term Design flood?	L1	3	2
6.	Define is flood routing.	L2	3	2
7.	What are the types of dams?	L1	4	2
8.	Classify the various zones of storage in a reservoir.	L2	4	2
9.	Distinguish between aquitard and aquiclude	L2	5	2
10.	Define drawdown.	L1	5	2

PART - B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a i Explain any two Automatic Rain gauges.	L2	1	10
	ii Explain "Hydrological cycle" with neat sketch.	L2	1	6
	Or			
	b i Explain the process of evapotranspiration and its measurement.	L2	1	10
	ii The rain gauge station X was in operative for a part of a month during storm occurred. The storm rainfall recorded at the three surrounding stations A, B, and C was 75, 55, and 85 mm respectively. If the average annual rainfall of the stations A, B, C, and X are 780, 660, 850 and 700 mm respectively. Estimate the storm rainfall of station X.	L2	1	6
12.	a List the factors affecting runoff and elaborate in detail.	L3	2	16
	Or			
	b Elaborate components of hydrograph also explain in detail about the characteristics of streams.	L3	2	16

13.	a	Explain in detail about the various flood control measures and different types of droughts.	L3	3	16
		Or			
	b	Explain in detail about NDVI analysis.	L3	3	16
14.	a	Describe about reservoir sedimentation and deposition.	L3	4	16
		Or			
	b	Explain the planning stages adopted in site selection of reservoir.	L3	4	16
15.	a	Draw a neat sketch and show the various types of aquifers, confining units, wells and interfaces in them along with their equivalent terminology.	L4	5	16
		Or			
	b	Explain in detail the Components of a rooftop rainwater harvesting system.	L4	5	16