

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech III Year II Semester Regular Examinations August-2023

HYDROLOGY AND WATER RESOURCES ENGINEERING
(Civil Engineering)

Time: 3 Hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

- 1 Explain the components of hydrological cycle with the help of a sketch. CO1 L2 12M
OR
2 a Explain the water budget method with a neat sketch. CO1 L2 6M
b Explain about Φ -index and W-index. CO1 L2 6M

UNIT-II

- 3 a Explain ground water well and basic assumptions. CO1 L2 6M
b In certain alluvial basin of 120km^2 , 100Mm^3 of ground water was pumped in a year and the ground water table dropped by 5m during the year. Assuming no replenishment, estimate the specific yield of the aquifer. If the specific retention is 12%, what is the porosity of the soil? CO1 L2 6M
OR

- 4 The left branch canal carrying a discharge of 20cumecs has a Culturable commended area of 20000 hectares? The intensity of rabi crop is 80% and base period is 120 days. The right branch canal carrying a discharge of 8 cumecs has a Culturable commended area of 12000 hectares, intensity of irrigation of rabi crop is 50% and base period is 120 days. Compare the efficiencies of the two canal systems. CO2 L3 12M

UNIT-III

- 5 Explain any five irrigation efficiencies. CO3 L2 12M
OR
6 Demonstrate about consumptive use of water and write in detail about factors affecting consumptive use of water. CO4 L2 12M

UNIT-IV

- 7 Explain about cross drainage work and its types. CO5 L2 12M
OR
8 Explain the different types of zones of storages in the reservoir with the help of neat sketch. CO5 L2 12M

UNIT-V

- 9 Classify the various types of dams according to use in detail with sketches. CO6 L2 12M
OR
10 a Explain with sketch about galleries in gravity dam. CO6 L2 6M
b A masonry dam 6 m high and 1.5 m wide at the top and 4.5 m wide at the bottom, with vertical face. Determine the normal stresses at the toe and heel for reservoir empty and reservoir full conditions. Take $\rho=2.4$ and $c=1$. CO6 L2 6M

*** END ***

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STYRENE POLYMERIZATION
POLYMERIZATION OF STYRENE
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Run	Time	Temp	Pressure	Conversion	Notes
101	11	101	101	101	101
102	12	102	102	102	102
103	13	103	103	103	103
104	14	104	104	104	104
105	15	105	105	105	105
106	16	106	106	106	106
107	17	107	107	107	107
108	18	108	108	108	108
109	19	109	109	109	109
110	20	110	110	110	110
111	21	111	111	111	111
112	22	112	112	112	112
113	23	113	113	113	113
114	24	114	114	114	114
115	25	115	115	115	115
116	26	116	116	116	116
117	27	117	117	117	117
118	28	118	118	118	118
119	29	119	119	119	119
120	30	120	120	120	120