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Question Paper Code: 1037006

B.E. / B.Tech. DEGREE EXAMINATIONS, NOV/ DEC 2024

Seventh Semester

Civil Engineering

U20CE702 – WATER RESOURCES ENGINEERING

(Regulation 2020)

Time: Three Hours

Maximum: 100 marks

PART – A

(10 x 2 = 20 Marks)

1. What are the importance of hydrology?
2. Classify the various types of precipitation.
3. What is the pan coefficient?
4. Define infiltration and differentiate it from seepage.
5. What is a hydrograph?
6. What are the limitations of a unit hydrograph?
7. Define Irrigation, and what is the necessity of irrigation?
8. Distinguish between base period and crop period.
9. Define the intensity of Irrigation.
10. Distinguish between single-purpose and multi-purpose reservoirs.

11. (a) Describe the various components of the hydrological cycle with a neat sketch. Also explain the arithmetic average method for computing average rainfall over a basin. (16)

(OR)

- (b) Describe the working principle of the following non-recording type rain gauge with a neat sketch. Mentioning its advantages and disadvantages also. (16)
- Tipping bucket rain gauge.
 - Weighing type rain gauge.
 - Float type rain gauge

12. (a) Explain the various factors that influences the evaporation. Discuss in brief the Blaney Criddle method of measurement of consumptive use of water. (16)

(OR)

- (b) Elaborate on the factor affecting infiltration and the different methods of measuring infiltration. (16)

13. (a) Explain the various factors that affect the run-off from a basin. (16)

(OR)

- (b) A 3 hour unit hydrograph for a basin has the following Co-ordinates. Using any suitable method, determine the 9 hour unit hydrograph. (16)

Time	0	3	6	9	12	15	18	21	24	27	30
Discharge	0	12	75	132	180	210	183	156	135	144	96

14. (a) Explain the benefits of irrigation and the ill effects of irrigation. (16)

(OR)

- (b) Derive the relationship between duty and delta of crop. Also, discuss the various factors that are affecting the duty of a crop. (16)

15. (a) Describe briefly the various classifications of canals. (16)

(OR)

- (b) Describe the different storage zones of reservoirs and operations with a neat sketch. (16)