

No. of Printed Pages : 03

Roll No.

E72

B. Tech. EXAMINATION, 2020

(Fifth Semester)

(B Scheme) (Re-appear Only)

(CE)

CE303B

HYDROLOGY

Time : 2½ Hours]

[Maximum Marks : 100

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Four* questions in all. All questions carry equal marks. Assume any data if missing.

(S)M-E72

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1. (a) How is precipitation measured ? Discuss the three methods which convert the point precipitation to areal precipitation and comment on the best method.
(b) The average annual rainfall of 5 rain gauges in a basin is 890, 540, 450, 410 and 550 mm respectively. How many additional gauges are required if it desired to limit the error to only 10% ?
2. Describe about the factors affecting infiltration and losses of precipitation.
3. Discuss rainfall runoff correlation. Why rainfall-runoff relationship is necessary ? Justify.
4. What do you understand by unit hydrograph ? How is it derived ? Explain its use in construction of flood hydrograph resulting from two or more periods of rainfall.

5. How can we determine capacity of a Storage Reservoir ?
6. Discuss the importance of rainwater harvesting and watershed management system.
7. What do you understand by time of concentration of a catchment ? Describe briefly the methods of estimation of the time of concentration.
8. Describe the problem of floods and their management with special reference to India.