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Roll No.

IVth SEMESTER

B.Tech.

MID SEMESTER EXAMINATION

March 2019

PAPER CODE EN-204

Water Engineering: Design and Application

Time: 1:30 Hours

Max. Marks: 20

Note : Answer all the questions
All questions carry equal marks.
Assume missing data, if any.

- Q1. (a) What is the importance of public water supply? Why is it necessary to control the water quality in nature and also in community?
(b) What is variation in water demand and their effect on design of water supply?
- Q.2 (a) What are the various characteristics of water considered for water supply? Discuss any one.
(b) Estimate the quantity of water required for the water supply of Delhi Technological University campus. Also comment on the present source of water supply in DTU campus?
- Q.3 (a) Explain any three methods for estimating future population of a city with their relative advantages and disadvantages.
(b) The population of a city as obtained from census report is as follows

Year	1961	1971	1981	1991	2001	2011
Population (lacs)	3.55	4.65	9.98	15.55	16.23	17.11

Estimate the population of city in 2031 by incremental increase method.

- Q.4 (a) Discuss various sub surface sources of water for water supply in brief. Also discuss factors governing selection of particular source.
(b) What are the various types of intake structures? Discuss simple submerged intake structures with the help of neat sketch.