

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATIONS-2022

B.Tech-III Semester (Civil)

COURSE CODE (CREDITS): 18B11CE314

MAX. MARKS: 15

COURSE NAME: Water Supply Engineering

COURSE INSTRUCTORS: Dr. Rishi Rana

MAX. TIME: 1 Hour

Note: All questions are compulsory. Marks are indicated against each question in square brackets. Scientific calculators are allowed.

Q1. (a) What are the objectives of water supply schemes?

[1.5 Marks] [CO-1]

(b) How to determine the storage need for an impounding reservoir? [1.5 Mark] [CO-1 &2]

Q2. (a) The population of five decades from 1910 to 1950 is given below. Find out the population in decades 1990, 2000 and 2010 by using: Arithmetical increase method; Geometrical increase method; Incremental increase method and decrease rate of growth method?

Year	Population
1910	378878
1920	402891
1930	643979
1940	691129
1950	858612

[8 Marks] [CO-2]

(b) What design criterion is commonly employed in finding out the sizes of the gravity mains used for conveying water from high level impounded reservoirs to towns situated miles away?

[2 Marks] [CO-1 & 2]

Q3. A town of population 50,000 has a water supply at 150 liters per head per day. Suggest a suitable breakup of the consumption on different heads. What allowance should be made in India for loss and wastage in water supply? Give reasons.

[2 Marks] [CO-1]