

## JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

## MID TERM (SUMMER SEMESTER EXAMINATION)- JUNE-2018

## B.Tech VII Semester

COURSE CODE:10B13CE735

MAX. MARKS:50

COURSE NAME: Dams and Reservoir Design

COURSE CREDITS: 04

MAX. TIME: 2 Hrs

*Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. Assume suitable data wherever required.*

1. Describe the various storage zones of a reservoir with the help of a figure. [10]
2. Explain the different types of dams used in general practice. Also mention the significance of each type. [10]
3. The runoff data for a river during a lean year are given below. Answer the questions to the common data (for Q. i to iii) showing proper calculations and explanations.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
River inflow (Mm <sup>3</sup> )	140	27	35	26	16	48	212	180	116	92	67	37

- i. What is the maximum uniform demand that can be met during the entire year?
- ii. What is the storage capacity required to meet this demand?
- iii. What is the minimum initial storage necessary and when will the reservoir become completely empty after provision of this storage? [15]
4. Explain the various methodologies used for the conversion of dependable rainfall to dependable yield. [10]
5. Describe the factors need to be considered while selecting the site for the dam. [5]