

special make up

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

Make-up Examination-Nov-2025

COURSE CODE (CREDITS): 18B1WCE736 (3)

MAX. MARKS: 25

COURSE NAME: DAM AND RESERVOIR DESIGN

COURSE INSTRUCTORS: DR. NIRAJ SINGH PARIHAR MAX. TIME: 1 Hour 30 Minutes

**Note:** (a) All questions are compulsory.

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

(c) Use of calculator is permitted.

Q.No	Question	CO	Marks								
Q1	Identify the basic topographical and other requirements while selecting a suitable site for a dam. Discuss the factors on which selection of a dam type would depend giving suitable examples.	1	9								
Q2	<p>A contour survey of a reservoir site gives the following data:</p> <table><tr><td>Contour R.L.(m)</td><td>200</td><td>210</td><td>220</td></tr><tr><td>Area (hec)</td><td>6.0</td><td>18.1</td><td>34.0</td></tr></table> <p>The capacity of the reservoir up to 200 m elevation is found to be 14.1 hec-m. Determine the general equation for the area-elevation curve and capacity-elevation curve. Also determine the reservoir capacity at RL 225 m.</p>	Contour R.L.(m)	200	210	220	Area (hec)	6.0	18.1	34.0	2	8
Contour R.L.(m)	200	210	220								
Area (hec)	6.0	18.1	34.0								
Q3	Provide an overview of the major forces and moments acting on a dam body with neat figures. Also explain different dam-failure mechanisms with their analysis and safety requirements.	3,4	8								