

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2025

B.Tech-VIII Semester (CSE/IT/ECE/BT/BI)

COURSE CODE (CREDITS): 22B1WCE733 (3)

MAX. MARKS: 25

COURSE NAME: PERENNIAL POWER STRUCTURES

COURSE INSTRUCTORS: 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

Q.No	Question	CO	Marks
Q1	Enlist the requirements of a good moderator material and applications of any two common moderators used. Also prove that the elements with low molecular weight are more suitable moderators.	CO1, CO2	7
Q2	Describe the functional working of a pressurized water nuclear reactor with the help of a well described schematic diagram.	CO2	6
Q3	Find the fuel required for operating a 400 MW nuclear reactor for a year using U-235 as sole fuel material. Assume 40% plant efficiency and 100% load factor.	CO3, CO4	5
Q4	Discuss the following in brief a. Classifications of hydroelectric power plants b. Storage zones in a reservoir	CO4	7