

10/12/25
12:30

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2025

M.Tech-I Semester (CE)

COURSE CODE (CREDITS): 10M11CE115 (3)

MAX. MARKS: 35

COURSE NAME: Mechanical and Electrical Systems in Building

COURSE INSTRUCTORS: Akash Bhardwaj

MAX. TIME: 2 Hours

Note: (a) All questions are compulsory.

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

Q. No	Question	Marks
Q1 (a)	List any three types of basic wiring systems used in buildings.	3
Q1 (b)	Draw the sub-station layout showing its various components. Explain the working of distribution panels of modern buildings.	4
Q1 (c)	For a smart building, propose how wiring and distribution would change if sensors, automated lighting, and IoT devices are included.	3
Q2 (a)	List different types of elevators based on their operation and application.	3
Q2 (b)	Explain working of chain-driven escalator with suitable figure.	4
Q3	List any five major functional spaces typically considered while residential building planning. Explain any two.	3
Q4 (a)	What is the difference between dead-end, grid iron, and ring distribution layouts? Explain with figure.	4
Q4 (b)	Define the one-pipe and two-pipe plumbing systems with figure.	4
Q5 (a)	Name common sound-absorbing materials used in buildings. Explain any two.	3
Q5 (b)	Draw and label at least four types of traps.	4