JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

B. Tech. - IV Semester (CSE/IT)

COURSE CODE (CREDITS): **18B11CI414** MAX. MARKS: **15**

COURSE NAME: **DISCRETE COMPUTATIONAL MATHEMATICS**

COURSE INSTRUCTOR: Ajeet Kumar Verma MAX. TIME: **1 Hour**

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

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

(c) Use of calculators is not allowed

Q.No	Question	CO	Marks
Q1	Define propositional logic. Write the truth table for the compound proposition: $(p \rightarrow q) \wedge \neg q$	1	3.5
Q2	Using **direct proof,** prove that: *The sum of any two even integers is an even integer.*	1	4
Q3	Let A = {1,2,3,4}and B={3,4,5,6}. Find: 1. A∪B 2. A∩B 3. A−B	2	3.5
Q4	State the Pigeonhole Principle. Give one suitable example to explain it.	1	4

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