

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

Supplementary Examination- 2026

BCA-I Semester

COURSE CODE(CREDITS): 25BC1MA111

MAX. MARKS: 75

COURSE NAME: DIGITAL LOGIC

COURSE INSTRUCTORS:SRT

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	CO	Marks
Q1	Explain the following terms- a. Digital signals b. Analog signals c. Pulse in digital systems d. Switching circuits e. Combinational circuits	CO-1	10
Q2	Explain the following terms- a. Cache b. Registers c. Primary Memory d. Secondary Memory e. PLA	CO-5	10
Q3	Explain half adder along with its truth table, logic circuit and block diagram?	CO-3	10
Q4	Explain half subtractor along with its truth table, logic circuit and block diagram?	CO-3	10
Q5	Explain counters with respect to digital systems? Explain the different types and applications of counters?	CO-4	10
Q6	Explain SR Flip Flop in detail?	CO-4	10
Q7	Explain the concept of parity generation and checking in detail?	CO-4	15