

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

Supplementary Examination- 2026

BCA-I Semester

COURSE CODE(CREDITS): 25BC1MA111

MAX. MARKS: 75

COURSE NAME: DIGITAL LOGIC

MAX. TIME: 2 Hours

COURSE INSTRUCTORS:SRT

*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- <ul style="list-style-type: none"> <li>a. Digital signals</li> <li>b. Analog signals</li> <li>c. Pulse in digital systems</li> <li>d. Switching circuits</li> <li>e. Combinational circuits</li> </ul>	CO-1	10
Q2	Explain the following terms- <ul style="list-style-type: none"> <li>a. Cache</li> <li>b. Registers</li> <li>c. Primary Memory</li> <li>d. Secondary Memory</li> <li>e. PLA</li> </ul>	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