

**A-1258**

Total Pages : 3

Roll No. ....

**BCA-01**

**Bachelor of Computer Application (BCA)  
Computer Fundamentals and Introduction  
to Digital Logic**

Examination February, 2026

Time : 2:00 Hrs.

Max. Marks : 70

*Note :-* This paper is of Seventy (70) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. *Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.*

**Section-A**

**(Long Answer Type Questions) (2×19=38)**

*Note :-* Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

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( 1 )

P.T.O.

1. Describe the architecture of a computer system. Explain the role of the CPU, memory, input/output devices, and storage in a computer system.
2. Discuss the evolution of computers. Explain the different generations of computers, their key features, and technological advancements.
3. Describe the types of input and output devices. Provide examples and discuss how they contribute to computer functionality.
4. Explain the fundamental logic gates (AND, OR, NOT). Discuss their truth tables and applications in digital circuits.
5. Describe the concept of number systems in digital logic. Explain the importance of binary, octal, and hexadecimal systems in computing.

### **Section–B**

**(Short Answer Type Questions) (4×8=32)**

**Note** :- Section ‘B’ contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. What is the difference between a combinational circuit and a sequential circuit ?
2. Write the truth table for an AND gate with two inputs.
3. What is the significance of a Karnaugh Map (K-Map) in digital logic ?
4. Convert the binary number 1011 to its decimal equivalent.
5. Explain the concept of encodes and decodes.
6. What do you mean by flip-flops ? Explain RS and J-K flip-flop.
7. Explain the concept of secondary storage device (Magnetic tape, Magnetic Disk).
8. What do you mean by Multiplexer ? Explain with example.

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