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BCA–01

BCA Ist Semester
Examination Dec., 2023

COMPUTER FUNDAMENTALS AND INTRODUCTION TO DIGITAL LOGIC

Time : 2 Hours]   [**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 there in. ***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.

1. Define Computer ? Also explain the various features of computer system.

2. Discuss various types of Logic Gates. Also discuss their applications.

3. Draw a block diagram of basic components of a computer system. Explain each component in detail.

4. Explain the block diagram of full adder,

5. What is flip-flop? Explain RS-flip flop and JK-flip-flop.

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 RAM & ROM ? Differentiate between both.

2. Explain about encoder and decoder.

3. Write down the difference between asynchronous and synchronous counter.

4. Explain about various generations of computers.

5. What is a RAM? What are its two types ? Differentiate between them.

6. Write a short note on Multiplexer and Demultiplexer.

K–316 (2)

7. What is sequential circuit ? How it differ from combinational circuit ?

8. Define the following terms :

    (i) Address bus, Data bus, Control bus

    (ii) Input and Output devices

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