

A-1146

Total Pages : 3

Roll No.

BCA-EA

Computer Architecture

Examination, June 2025

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.

1. Explain the various addressing mode. Explain the characteristics of RISC processor.
2. Explain different functional units of a computer with neat sketch.
3. Explain and Draw a neat block diagram of memory hierarchy in a computer system.
4. What is Bus Arbitration ? Explain the working principle of DMA with a neat diagram.
5. Describe the concept of cache memory and explain the methods of writing into cache.

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. Differentiate between computer organization and computer architecture.
2. Differentiate between hardwired control and micro programmed control.
3. What do you mean by virtual memory ? Discuss how paging help in implementing virtual memory.

4. What is Input/Output (I/O) organisation in a computer system ?
5. What is instruction cycle ? How is it different from execution cycle ? Explain.
6. Define the following terms :
 - (i) Binary adder
 - (ii) Page Fault
7. Differentiate between Static RAM (SRAM) and Dynamic Ram (DRAM).
8. Explain the following standard coding schemes with an example.
 - (i) ASCII
 - (ii) EBCDIC
 - (iii) UNICODE
