

A-1145

Total Pages : 3

Roll No.

BCA -EA

Computer Architecture

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. Explain the working of a Central Processing Unit (CPU) with the help of a neat diagram.
2. Describe various types of computer memory. Compare main memory, cache memory, and secondary storage.
3. What is an instruction format ? Explain the types of instruction formats with suitable examples.
4. Explain the concept of Control Unit in CPU. Differentiate between Hardwired and Microprogrammed Control Unit.
5. What is Virtual Memory ? Explain the concept of paging and page replacement policies.

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 CISC and RISC architectures ?
2. Define Register Transfer and explain its role in CPU operations.

3. What is the purpose of cache memory ? Explain any two mapping techniques.
4. What is Bus Arbitration ? Write its types.
5. Define DMA. Explain its advantages in I/O processing.
6. What is Pipelining ? Mention its advantages.
7. What are various addressing modes ? Give examples of any two.
8. Explain the concept of instruction set and its types.
