B.C.A. CBCS (SEMESTER - I) EXAMINATION – JANUARY 2021
COMPUTER ORGANIZATION AND ARCHITECTURE

Duration : 2 hours   **Marks : 30**

Instructions : **1. All questions are compulsory however internal choice is available.**
                 2. Figures to the right indicate full marks.

1. Answer any FIVE of the following.   (5x2= 10)

    a) Explain the Read and Write mechanisms of Magnetic Disk.

    b) Explain the structure of Dynamic RAM.

    c) Explain the FireWire Protocol Stack.

    d) Explain the operation of DMA.

    e) Explain the Direct Addressing with an example.

    f) Explain the Horizontal Micro-programming.

    g) State the basic elements of Processor.

    h) Perform the following operation:-
        $(-7) + (-6)$

2. Answer any FOUR of the following.   (4x5= 20)

    a) Explain the basic Computer operations and draw the block diagram of
        Computer.

    b) Explain the High Performance Architecture with the diagram.

    c) Explain the Three-Level Cache organization with the diagram.

    d) Explain the various functions of I/O Module.

    e) Explain the Program Status Word.

    f) Explain the Control Unit with Decoded Inputs.

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