

Code No. : A.B.C-393

Roll No.

Total No. of Sections : 3

Total No. of Printed Pages : 4

Annual Online Examination 2021

Code No. : A.B.C-393

B.C.A. Part III

Paper III

[Computer System Architecture]

Time : Three Hours]

[Maximum Marks : 50

Note : Section 'A' containing 10 very short answer type questions, is compulsory. Section 'B' consists of short answer type questions and Section 'C' consists of long answer type questions. Section 'A' has to be solved first.

Section 'A'

Answer the following Very Short Answer Type Questions in one or two sentences : 1×10=10

1. Convert $(101101110011)_2 = ()_{16}$.
2. Convert $(7432)_8 = ()_2$.
3. What is shift register ?
4. Write truth table of X-OR gate.
5. What is program counter ?
6. What is motherboard ?

7. Write any 2 properties of I/O devices.
8. What is handshaking ?
9. What is hit ratio ?
10. What is virtual memory ?

Section 'B'

Answer the following Short Answer Type Questions in about 150-200 words : 3×5=15

1. Explain ASC II code with the help of example.

Or

Explain EBCDIC with the help of example.

2. Explain J-K flip-flop.

Or

Explain R-S flip-flop.

3. Explain SMPS.

Or

Explain system buses.

4. Explain asynchronous serial transfer.

Or

Explain model of data transfer.

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5. Explain associative memory.

Or

Explain cache memory.

Section 'C'

*Answer the following Long Answer Type Questions
in about 300-350 words : 5×5=25*

1. Explain error detection and correction method with the help of example.

Or

Explain grey codes, excess-3 and BCD codes.

2. Explain full adder.

Or

Explain full subtractor.

3. Explain block diagram of a macro computer system.

Or

Explain ALU and control unit.

4. Differentiate synchronous and asynchronous data transfer.

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Or

Explain input–output organization and also explain I/O interface.

5. Explain memory hierarchy.

Or

Short notes on :

(i) Page Table,

(ii) Page replacement.

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