

Roll No.

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Total No. of Pages : 02

Total No. of Questions : 07

BCA (2011 & Onward) (Sem.-2)
COMPUTER SYSTEM ARCHITECTURE
Subject Code : BSBC-204
Paper ID : [B1116]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and a student has to attempt any FOUR questions.

SECTION-A**1. Write briefly :**

- a. What is difference between computer organisation and computer architecture?
 - b. What do you mean by the micro-operation?
 - c. Define the concept of BUS.
 - d. What do you mean by an interrupt?
 - e. Write note on control unit.
 - f. What do you mean by computer memory? Which is the fastest memory of computer?
 - g. Write full name for the following terms : RAM, DMA, LRU, FIFO.
 - h. Define the term associative memory.
 - i. What is the addressing mode? Write difference between direct and indirect addressing modes.
 - j. Define the mobile devices architecture in brief.
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SECTION-B

2. Explain the concept of stored program computer. Give Von Neumann architecture for it.
 3. What are the basic operations that are carried out in registers? Given 8-bit registers AR, BR, CR and DR such that AR = 11110010, BR = 11111111, CR = 10111001
DR = 11101010, determine the 8-bit values in each register after execution of following sequence of micro- operations :
 - a. $AR \leftarrow AR + BR$
 - b. $BR \leftarrow BR + 1$
 - c. $CR \leftarrow CR \wedge DR$
 - d. $AR \leftarrow AR + BR$
 4. Explain the instruction cycle and its different phases. Also draw the flow chart for instruction cycle.
 5. Explain how I/O data transfer takes place with the help of DMA. In what ways is it better than other I/O data transfer techniques? Discuss with example.
 6. What do you mean by cache memory? Discuss the role of cache memory. Explain various mapping procedures/ techniques used for cache memory organisation.
 7. Differentiate the following : www.a2zpapers.com
 - a. Hardwired and micro programmed control unit
 - b. LRU and FIFO page replacement algorithms.
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