

Roll No.

Total No. of Questions : 07]

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BCA (Sem. - 3rd)
COMPUTER SYSTEM ARCHITECTURE
SUBJECT CODE : BC - 403 (Batch 2k3 on wards)
Paper ID : [B0226]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.

Section - A

Q1)**(10 × 2 = 20)**

- a) What are the salient features of 8-bit microprocessor?
- b) Differentiate between instruction cycle and machine cycle.
- c) What is the need of interrupt in computer hardware design?
- d) How is instruction different from microinstruction?
- e) Who controls the buses in Computers and how?
- f) List some properties of computer instruction.
- g) What are I/O channels?
- h) What do you understand by micro-codes?
- i) Explain the difference Static RAM and Dynamic RAM.
- j) What is timing diagram? Explain with an example.

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Section - B**(4 × 10 = 40)**

- Q2)** (a) Discuss the importance of memory reference instructions in computers with examples.
- (b) What are the advantages and disadvantages of memory and I/O ports? Also explain their working.
- Q3)** Differentiate between the following :
- (a) Micro-programmed and hard-wired control unit.
- (b) Addressing modes.
- Q4)** What do you understand by instructions format? Explain the types of instruction format and give atleast 3 examples of each. Also give the difference between instructions format and instruction set.
- Q5)** What do you understand by memory hierarchy? Explain why do we have different types of memory in a computer system.
- Q6)** What is the advantage of Interrupt driven I/O over programmed I/O? Explain daisy chaining in detail.
- Q7)** Briefly describe the stack organization in CPU.

