

Roll No.

Total No. of Questions : 07]

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B.Sc. IT (Sem. -3rd)
COMPUTER SYSTEM ARCHITECTURE

SUBJECT CODE : BS - 201

Paper ID : [B0409]

[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) Explain the steps involved in an instruction cycle.
- b) Give examples of data transfer instruction.
- c) What do you mean by page fault?
- d) Write note on associative Memory.
- e) Name various registers available in basic computer.
- f) What is the role of Accumulator?
- g) What do you mean by paging?
- h) Explain BSA (Branch and Save Return Address) in brief.
- i) Differentiate between vectored and non-vectored interrupt.
- j) Under what conditions would it be feasible to use a hard wired control than a micro-programmed control unit.

Section - B**(4 × 10 = 40)**

- Q2)** How computer instructions can be classified? Give the format along with the description.
- Q3)** Draw the Interrupt cycle. Explain it in detail.
- Q4)** Explain various addressing modes of computer system architecture. Discuss it with some example.
- Q5)** What is the design principle of cache memory? Discuss the direct cache mapping scheme.
- Q6)**
 - a) Write note on magnetic tapes.
 - b) What is Synchronous and Asynchronous Data transfer? Explain.
- Q7)** Explain parallel priority interrupt system in detail considering 4 interrupt sources.