Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐ **Total No. of Pages : 02**

Total No. of Questions : 09

B.Tech.(CSE/IT) (Sem.–3rd) (2011 Batch)
COMPUTER ARCHITECTURE
Subject Code : BTCS 301
Paper ID : [A1123]

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 FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.**

SECTION-A

l. Write briefly :

   a) What is the difference between microprocessor and micro program?

   b) What is interrupt? List types of interrupt.

   c) List various arithmetic micro operations.

   d) Give two applications of two- Address instructions.

   e) What is auxiliary memory?

   f) What is the relation between address and memory space in a virtual memory system?

   g) What do you mean by programmed I/O operations?

   h) What is the requirement of MODEM in serial communication?

   i) What is array processor?

   j) List various RISC instructions.

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SECTION-B

2. What do you mean by software and hardware interrupts? How these are used in a microprocessor system?

3. What are the basic differences between a branch instruction, a call subroutine and program interrupt?

4. Explain the hardware organization of associative memory.

5. How DMA controller works? Explain with suitable block diagram.

6. What do you mean by control memory? Explain.

SECTION-C

7. What do you mean by addressing mode of Instructions? Explain various addressing modes of instructions.

8. Explain in detail the characteristics of RISC and CISC architecture.

9. What is mapping process in cache memory? Discuss various mapping procedures.