ROLL NO .....

2005 ANDHRA UNIVERSITY

II B.TECH II SEMESTER DEGREE EXAMINATION
B.TECH INFORMATION TECHNOLOGY
COMPUTER ORGANIZATION

TIME : 3 HOUR
MARK : 70

FIRST QUESTION IS COMPULSORY

ANSWER ANY FOUR FROM THE REMAINING QUESTIONS

ALL QUESTIONS CARRY EQUAL MARKS

ANSWER ALL PARTS OF ANY QUESTION AT ONE PLACE

1. (a) What is the arithmetic shift and how to identify the over flow?

(b) What is firmware?

(c) What is asynchronous transmission?

(d) Define hit ratio?

(e) What is handshaking?

(f) Define index addressing mode?

(g) What is write back procedure in cache memory?

2. (a) Show the hardware including logic gates for the control function that implements the statement xy1T0 + T1 + x1yT2 : A ? A+1

(b) Describe the register transfer language operation illustrating with one example?

3. (a) Describe the mechanism of an instruction fetching, decoding and execution using flow chart?

(b) What are data manipulation instructions BASIC computer? Explain with examples.

4. (a) Compare hardware control and micro programmed control?

(b) Show how nine bit micro operation field in a micro instruction can be divided into sub fields? Explain with an example.

5. (a) With flow charts explain how floating point addition is performed in a computer?

(b) What are the functions performed by an I/O interface? Explain with an example.

6. (a) Compare and contrast isolated I/O and memory mapped I/O.

(b) Why does I/O interrupt make more efficient use of the CPU?

7. (a) Explain the need of the memo hierarchy?

(b) What is the associate memory and what kind of operation it is more suitable?

8. Write short notes on

(i) Virtual Memory (ii) Instruction formats. (iii) DMA

(iv) Memory Reference Instructions of BASIC Computer