Name.

Reg. No.

## FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE **JUNE 2008**

CS 04 405—COMPUTER ORGANIZATION AND DESIGN (2004 admissions)

Maximum: 100 Marks

Time: Three Hours

4

## Part A

Answer all questions.

- (a) Write short notes on evaluation of performance.
  - (b) Write short notes on computer registers and instructions.
    - Write the booth algorithm.
    - Write addition and substraction algorithm.
    - (e) Write short notes on Arithmetic logic shift unit.
    - (f) Write about Register transfer.
    - (g) Write about memory hierarchy.
    - (h) Write about Cache memory.

 $(8 \times 5 = 40 \text{ marks})$ 

## Part B

II. (a) Explain in detail about operations and operands of computer hardware.

- (b) Write about instruction codes and Timing and control of computer.
- III. (a) Explain the working of float point adder with a neat diagram and flowchart.

- (b) Explain in detail about ALU.
- IV. (a) Write about Arithmetic logic shift unit and address sequence of microprogram.

- (b) Explain how microprogrammed control unit is designed.
- Explain in detail about modes of transfer and asynchronous data transfer.

(b) Explain in detail about types and characteristics of input/output devices.

 $(4 \times 15 = 60 \text{ marks})$