

Code No: 114CN

R13

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech II Year II Semester Examinations, May - 2015

COMPUTER ORGANIZATION

(Computer Science and Engineering)

Time: 3 Hours

Max. Marks: 75

**Note:** This question paper contains two parts A and B.  
Part A is compulsory which carries 25 marks. Answer all questions in Part A.  
Part B consists of 5 Units. Answer any one full question from each unit.  
Each question carries 10 marks and may have a, b, c as sub questions.

**PART- A**

(25 Marks)

- 1.a) Compare RISC and CISC architecture? [2M]
- b) Give an example to explain three address instruction formats. [3M]
- c) What is strobe signal? [2M]
- d) Why does the DMA having priority over CPU when both requests for memory transfer? [3M]
- e) Give the basic structure of cache and what is its use. [2M]
- f) With a neat diagram explain memory connection to CPU. [3M]
- g) State and explain any two addressing modes of 8086. [2M]
- h) With a neat sketch explain the concept of a pipeline? [3M]
- i) Give examples to explain call instructions in 8086. [2M]
- j) Briefly discuss about unconditional branch statements. [3M]

**PART-B**

(50 Marks)

2. Write in detail about various types of instructions? Give examples for each one. [10]
- OR**
- 3.a) Discuss about status bits in program control register.
  - b) Explain in detail about conditional branch instructions. [5+5]
4. With a neat diagram explain the architecture of 8089 I/O processor. [10]
- OR**
5. With a neat block diagram show the DMA transfer in a computer system. [10]
6. What do you mean by virtual memory? Discuss how paging helps in implementing virtual memory. [10]
- OR**
7. Describe in detail about working of associative memory. [10]
8. With a neat architectural diagram explain the functioning of 8086 microprocessor. [10]
- OR**
9. With a neat diagram explain the 8086 CPU pin diagram? Discuss in brief about each pin. [10]

10. Write an 8086 assembly language program to find factorial of a given number? Add comments to your Program. [10]

OR

11. Write 8086 assembly language program to find largest number from a given array of numbers? Add comments to your Program. [10]

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8086