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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