

Code No: C7503**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****M.Tech I - Semester Examinations, March/April-2011****ADVANCED MICROPROCESSOR****(CONTROL SYSTEMS)****Time: 3hours****Max. Marks: 60**

Answer any five questions
All questions carry equal marks

- - -

1. Draw a neat block diagram of maximum mode system of 8086 and explain the Read and Write timing diagram in maximum mode system. [12]
- 2.a) Explain different addressing modes of 8086 instructions with an example each.
b) Explain the following terms of 8086
 - i) Effective address
 - ii) Odd and even address (banks)
 - iii) Conditional branching
 - iv) Pointers in 8086. [12]
- 3.a) Write an assembly language program of 8086 to reverse a given string and store it in another string location.
b) Write an interrupt service routine to 8086 to generate a software delay of 2 ms (assume clock frequency). [12]
- 4.a) With the help of a neat block diagram of I/O processor 8089 explain its operation.
b) What is meant by Bus arbitration? When is it used in a system? [12]
- 5.a) What is meant by virtual memory? How can a processor switch from virtual mode to real mode and vice versa?
b) What are the RLSC properties? Explain them in detail. [12]
- 6.a) Explain the descriptors in 80486 processor.
b) How is physical address computed in an 80386? [12]
- 7.a) Explain the special function register set of 8051.
b) How many hardware interrupts can 8051 handle and how? [12]
8. Write a brief note on:
 - a) Sun SPARC family
 - b) Advantages and disadvantages with paging and cache memory. [12]
