

T.E. sem 6 (Rev.)
ETRX

Computer Organisation

28/5/08

ws April 08 519

Con. 3248-08.

(REVISED COURSE)

CO-2875

(3 Hours)

[Total Marks : 100

N.B. : (1) Question No. 1 is **compulsory**.

(2) Attempt any **four** questions from Q Nos. 2 to 7.

(3) **Figures** to the **right** indicate **full** marks.

1. (a) Explain different addressing modes of Pentium Processor. Give suitable examples. 10
(b) Explain different multiprocessor system configurations. 5
(c) Which are different I/O accessing techniques. Compare paging and segmentation in brief. 5
2. (a) Explain 'Concurrency' and 'Consistency' in detail with an example. 10
(b) What is bus contention ? How is it resolved by using bus arbitration ? Explain in brief various bus arbitration schemes. 10
3. (a) What is microprogramming ? Draw schematic of microprogrammed control unit and explain. 10
(b) Explain various methods for the design of control unit. 10
4. (a) What is virtual memory ? Explain how paging is useful in implementing virtual memory. 10
(b) Explain various data dependant hazards in a linear pipe line with suitable example. 10
5. (a) Explain various DMA transfer modes in brief with suitable examples. 10
(b) Explain concept of Cache memory with reference to principle of Locality of reference, hit ratio and different Cache architectures. 10
6. (a) Explain the concept of pipe lining. Show that K stage pipe lined processor has K times speed up compared to a non pipelined systems. 10
(b) What is meant by 'Vectored bus interrupt' ? Explain with example. 10
7. Write short notes on (any two) :- 20
 - (a) Floating Point Formats
 - (b) Booth's Algorithm
 - (c) Cache Issues in Multiprocessor Systems.