

II B.Tech II Semester Supplementary Examinations, Apr/May 2006
COMPUTER ORGANISATION
(Common to Computer Science & Engineering, Information Technology,
Computer Science & Systems Engineering and Electronics & Computer
Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain Booth's algorithm for 2's complement multiplication of (0111) and (0011).
(b) Draw the hardware implementation of unsigned binary multiplication. [8+8]
2. Explain the CPU instruction pipeline with the help of flow graph and timing diagram. . [16]
3. (a) With the help of a flow chart , explain the instruction cycle.
(b) Explain about the various outputs from a control unit. [10+6]
4. (a) Clearly distinguish between
 - i. Packed/Unpacked microinstructions
 - ii. Hard/Soft microprogramming(b) List and briefly explain applications of microprogramming. [10+6]
5. (a) Compare SRAM with DRAM
(b) Why are the multilevel memories used in a computer system ? [8+8]
6. Compare and contrast segmentation technique with paging technique. [16]
7. What is Asynchronous Data Transfer? Explain various methods of asynchronous data transfer with timing diagrams. [16]
8. (a) Describe the centralized and distributed bus arbitration schemes.
(b) Discuss the need of interface circuits. [8+8]
