

CS609-System Programming

Final Term Examination

SEMESTER FALL 2005

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Write a TSR program that will prevent the block with the physical address sec= 10, head =0, track= 20, to be written on the first physical hard drive, Interrupt used to write a block is 13h/3h. AL=physical drive no., BH=head, BL=track no. and CH=Track no.

Hardware cost in case of computer to computer communication via serial ports can be reduced by using software driven flow control. In this case the DTR, DSR, RTS and CTR lines can be omitted and the flow control is performed through software. The software uses two control characters ^S (XON) and ^T (XOFF) such that receipt of XON indicates start of data transfer and XOFF indicated temporary pause in communication to match the throughputs of receiver and sender. Write a program that will perform communication for a serial ports using the software oriented flow control method as described above.

Write a program which when resident makes use of some hot keys to control the typematic rate of keyboard, i.e. Each time CTRL+U is pressed the typematic rate increases one step and when CTRL+D is pressed the typematic rate decreases one step

Describe COM and EXE file viruses, Give an algorithm that can be used to prevent a virus from changing the file size of COM or EXE file during propagation state?