CS609 System Programming

Final Term Examination – Spring 2006
Time Allowed: 150 Minutes

Question No. 1	Marks : 10

As you know each entry in FAT12 is 12-bits wide, but we can address to a byte or double word etc. and not a single bit.

    a- **So how can we access a 12-bit entry without losing any information?** (4)
    b- **Consider the following example:** (6)

Offset	value
373H	59H
374H	23H
375H	53H
376H	72H
377H	53H
378H	55H
379H	52H
380H	25H
381H	56H
382H	62H
383H	25H

Question No. 2	Marks : 6

Write a function that takes drive number as an input and return the far address of Drive Parameter Block.

Question No. 3	Marks : 9

How can we determine that a particular system contains FAT12, FAT16 or FAT32 file system? Write down an algorithm for it.

Write down three differences between Logical Sector Number (LSN) and Logical Block Addressing (LBA).

Write a program that store all the bytes received through COM1 port and save it to a file.

Write a program that modifies the typematic rate of the keyboard. It will change the delay to ½ second and typematic rate to 2 characters per second.