

## Quiz 2: Computer Programming Lab (MA512)

M.Sc. (M&C), Semester: Aug-Nov 2008-2009

Dept. of Mathematics, IIT Guwahati

Date: November 13, 2008

Time: 2:00PM - 5:00PM

*Attempt all questions*

*Full Marks: 30*

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1. Write a C program for writing 10 random one digit integer (except zero) in a column over two data files *file1.dat* and *file2.dat* each. Write another C program which can read the data simultaneously from file *file1.dat* and *file2.dat* as command line parameters. Then generate 10 new integers by concatenating two digits; first digit from *file1.dat* and second from *file2.dat* consecutively. Finally, find the maximum among the newly generated integers. [4+8]
2. Write a C program for creating a linked list with integer key values. No. of nodes should not be fixed within your program. Given the above list, split its nodes in to shorter lists such that all the even elements should go in the first list (or remain in the original list), and all the odd elements in the second list. Finally, print both of the lists. [4+8]
3. A number of “Cats” got together and decided to kill between them 999919 mice. Every cat killed equal number of “mice”. Write a C program to find number of cats. [6]

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