

**MCA (Revised)**  
**Term-End Practical Examination**  
**December, 2007**

**MCSL-025 : LABORATORY COURSE (FOR DATA AND FILE  
STRUCTURES, NETWORKING, DBMS LAB & JAVA  
PROGRAMMING)**

Time allowed : 3 hours

Maximum Marks : 100

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**Note :** There are four sections (Data and File Structures, Networking, DBMS Lab and Java Programming) in this paper. Each section is for 40 minutes duration. Attempt only that part(s) in which you are **not** successful as yet.  
Answer all the questions in each section. Each section carries 20 marks and the viva-voce is for 5 marks.

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**SECTION A : Data and File Structures**

1. Write a program in 'C' language to convert a prefix expression to a postfix expression using pointers. 10
  
2. Write a program in 'C' language to count the number of leaves of a Binary tree. 10

## SECTION B : Networking

*Perform practicals on Linux/Unix/Windows 2000.*

1. Run the following commands and write the use of each command : 2
  - (a) route
  - (b) fc
  - (c) drivers
  - (d) ftp
  
2. Find your Ethernet physical address. 3
  
3. Find out which lines of sample.txt file are satisfied by the regular expression given : 4

$(^{0-9} \{1, 5\} [a-zA-z] + \$) | none$

Check the result with different combinations of lines. Use suitable command.
  
4. Install and configure the DHCP server service. 4
  
5. Enable and configure IPsec policy on local computer. 7

### SECTION C : DBMS Lab

1. Create the following table and perform the necessary tasks defined below :

(a) Create the following table named UNIVERSITY :

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- Name
- Courses
- Students
- Departments
- Teachers

(b) Enter at least 5 sets of data in the above table and answer the following queries using SQL :

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- (i) Find the number of universities that are offering MBBS course.
- (ii) Find the university which is having largest number of students.
- (iii) Count the total number of universities.
- (iv) Find the course which is having lowest number of students.
- (v) Find the university which is having highest number of departments.

## SECTION D : Java Programming

1. Write an applet that accepts an enrollment number as input and prints the corresponding grade card. 10
2. Write a program in Java to simulate a calculator. 10