IMCA – 13

I Semester Int. M.C.A. Examination, February/March 2010
PROGRAMMING IN C

Time : 3 Hours Max. Marks : 100

Instructions: *1) Answer **all** questions in Part – **A**, **5** out of 8 questions in Part – **B**, and **4** out of 6 questions in Part – **C**.*
*2) PART – **A**: Questions from **1** to **8** carry **1** mark **each** and **9** to **14** carry **2** marks **each**.*
*3) PART – **B**: **Each** question carries **8** marks.*
*4) PART – **C**: **Each** question carries **10** marks.*

PART – A

1. What is a program ?
2. What does static variable mean ?
3. What is a flowchart ?
4. Write the syntax of printf and scanf functions ?
5. Does an automatic variable retain its value once control is transferred out of its defining function ?
6. How can structure variables be declared ?
7. What are enumerators ?
8. Can a Structure contain a Pointer to itself ?
9. What are the differences between malloc() and realloc() ?
10. Explain Scanf() and Printf() statements with examples ?
11. What is recursion? Give an example for recursion.
12. Differentiate between a for loop and a while loop ?
13. Explain the different relational operators in C with examples ?
14. Explain any two pre-processor directives ?

P.T.O.

PART – B

1. Illustrate the use of precedence of operators in C ?
2. Illustrate the use of user defined function in C.
3. Explain the commonly used input/output functions ?
4. Write a C program to calculate the area of a circle.
5. What is the minimum number of times a do-while loop can be executed? Compare the same with a while loop.
6. Explain the storage class included in C ?
7. Write a C program to convert lowercase character to upper-case.
8. Write a C program to multiply calculate the area of a trapezium.

PART – C

1. Write a C program to sort a list of strings into alphabetical order ?
2. Explain the arrays of pointers with example ?
3. Explain any five string handling functions with 2 examples.
4. Write a C program to demonstrate the operations on pointers.
5. Write a program using bubble sort to sort a list of names in alphabetical order.
6. Illustrate the use of recursive function to calculate the factorial of a positive number.

_____