MCA – 13

I Semester M.C.A. Examination, Feb./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 statement in C ?
2. What does static variable mean ?
3. What is an algorithm ?
4. What do you mean by main memory ?
5. Does an automatic variable retain its value once control is transferred out of its defining function ?
6. What are high level languages ?
7. What are register variables ?
8. Can a Structure contain a Pointer to itself ?
9. What are the differences between application software and system software ?
10. Discuss all the basic data types supported by C language.
11. Differentiate between a for loop and a while loop ?
12. Explain the different arithmetic and logic operators ?
13. Explain any two pre-processor directives ?
14. Discuss different control statements in C.

P.T.O.

PART – B

1. Write a C program to demonstrate the use of switch statement.
2. Illustrate the use of structure in C.
3. Explain the commonly used loops in C.
4. Write a C program to calculate the area of a triangle.
5. Write the C program to print prime numbers in the given range of integers.
6. Explain the storage class included in C.
7. Write a C program to convert upper case character to lower case.
8. Explain different modes of opening a file.

PART – C

1. Write a C program to search the given element in the list using binary search.
2. Explain the arrays of pointers with example.
3. Explain any five string handling functions with 2 examples.
4. Write a C program to read name and exam scores of n student. Calculate and print name, score and average of each student using structure.
5. Write a program using selection 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.

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