2013

Time: 3 hours
Full Marks: 80

Candidates are required to give their answers in their own words as far as practicable.
The figures in the margin indicate full marks.
Answer from both the Groups as directed.

Group – A
(Compulsory)
(Objective Type Questions)
Answer all questions:
1. Choose the correct answer of the following:

   \[2 \times 10 = 20\]

   (a) The C programming is a:

   (i) High-level language

   (ii) Low-level language

   (iii) Middle-level language

   (iv) Assembly language

UK – 4/3 (Turn over)
(e) In an array $x[10]$ the $x$ represents the

(i) Base address
(ii) Base value
(iii) Void pointer
(iv) None of the above

(f) The string is terminated with ________
character.

(i) ‘?’
(ii) ‘0’
(iii) ‘#’
(iv) None of the above

(g) A typecast is used to:

(i) Define a new data type
(ii) Remane an old type
(iii) Force a value to be of a particular variable type
(iv) None of the above

UK – 4/3 (3) (Turn over)
(h) Which is the correct way to declare a pointer?

(i) int *ptr
(ii) *int ptr
(iii) int ptr*
(iv) None of the above

(i) Recursion is a process in which a function calls:

(i) Itself
(ii) Another function
(iii) Main () function
(iv) None of the above

(j) Which of the following directive creates functions like macros?

(i) # include
(ii) # define
(iii) # undef
(iv) # ifdef
Group – B

(Long-answer Type Questions)

Answer any four questions of the following:

2. Explain the methods for initialization of variables. 15

3. Write a program using C to sort six numbers and find the largest one by using ladder of if else statement. 15

4. Write a program using C to check whether a given number is palindrome. 15

5. Explain the difference between “call by value” and “call by reference” with suitable examples. 15

6. Write a program using C to add even and odd numbers from 1 to 10. Store them and display their results in two separate arrays. 15

7. Write an algorithm and then write a program using C to display all prime numbers less than the number entered by the user. 15

UK – 4/3 (5) (Turn over)
8. (a) Describe any three string conversion functions. 7
(b) What is the use of strcpy ( ) and strdup ( ) functions? 8

9. (a) What is an array of pointer? How is it declared? 7
(b) What are the uses of malloc ( ) and free ( ) functions? 8

10. Write an algorithm and then write a program using C to enter the roll number and marks of any three courses of few students from the keyboard and write to a "student.txt" file. 15