

ALCCS

Code: CS11

Subject: COMPUTER PROGRAMMING &
PROBLEM SOLVING THROUGH C

Time: 3 Hours

MARCH 2010

Max. Marks: 100

NOTE:

- Question 1 is compulsory and carries 28 marks. Answer any FOUR questions from the rest. Marks are indicated against each question.
 - Parts of a question should be answered at the same place.
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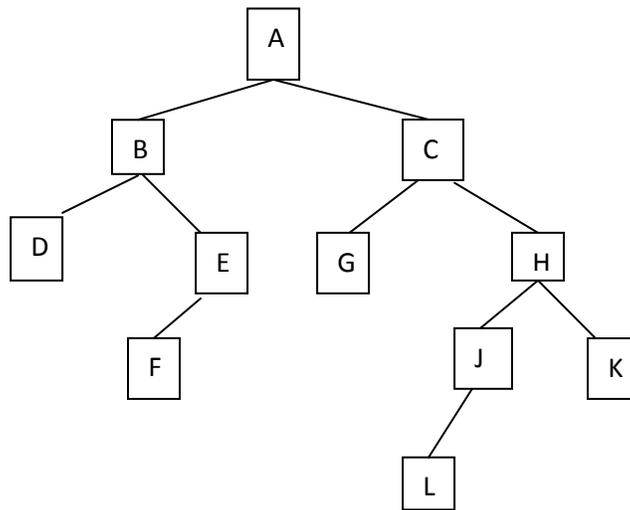
- Q.1** a. What is meant by compilation? What is meant by interpretation? How do these two processes differ?
- b. To free we only pass the pointer to the block of memory that we want to deallocate. Then how does free() function know how many bytes it should deallocate?
- c. What is meant by associativity? Discuss the associativity of arithmetic operators.
- d. If $a[i] = i++$ is undefined, then by the same reason $i = i+1$ should be undefined. But it is not so. Why?
- e. Discuss the characteristics of (i) extern variable (ii) automatic variable.
- f. What are the two ways of opening a file? Explain with example.
- g. If $a = 7$, $b = 5$, $c = 3$, what is output of $(a>b?(a>c?3:4):(b>c?6:8))$ (7 × 4)
- Q.2** a. What are the rules for naming identifiers?
- b. Using functions, write a program to find the scalar product of two vectors. (8+10)
- Q.3** a. What is the difference between a keyword and an identifier?
- b. Write a function, to insert a node at the end of a singly linked list. (8+10)
- Q.4a.** What types of error generally occur while programming? Explain with examples.
- b. Write a program to find maximum values stored in 2D array. (8+10)
- Q.5** a. What is the purpose of typedef feature?
- b. Write a recursive Program to generate Fibonacci series. (8+10)

Q.6 a. What is a structure? How structure elements can be accessed through (i) a structure variable (ii) a pointer to a structure. Explain with examples.

b. Write a program to add two polynomials.

(8+10)

Q.7 a. Write inorder and postorder traversal of the following graph.



b. Write a program for insertion sort.

(8+10)