Code: 9F00105

MCA I Semester Supplementary Examinations June/July 2018
DATA STRUCTURES
(For 2011 (LC), 2012, 2013, 2014, 2015 & 2016 admitted batches only)

Time: 3 hours   Max. Marks: 60

Answer any FIVE questions
All questions carry equal marks
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1 (a) What is a function? State the advantages of using a function.
   (b) Write a C program to swap two numbers using pointers.

2 (a) Explain the insertion operation performed in circular linked list.
   (b) Write a short note on sparse matrix manipulation and polynomial representation.

3 (a) How to represent stacks using linked list? Give the suitable example.
   (b) Write a procedure to convert postfix to infix expression with a simple example.

4 (a) Explain about the queue operations with an example.
   (b) Explain array representation of queues with an example.

5   Explain with a simple example for:
   (a) Bubble sort.
   (b) Merge sort.

6 (a) Discuss in detail about the linear search with its algorithm and a simple example.
   (b) Give a brief description about inverted tables.

7   Explain various operations performed in the binary search tree in detail.

8 (a) Explain the insertion operation in B-tree.
   (b) Write a short note on Min heap and Max heap with an example.

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