S.E. Comp, Sem - II
Nov - Dec 2012, 2008 Pattern

Total No. of Questions—12] [Total No. of Printed Pages—4+1

Seat No.	

[4262]-207

S.E. (Computer) (II Sem.) EXAMINATION, 2012

DATA STRUCTURE

(2008 PATTERN)

Time : Three Hours **Maximum Marks : 100**

N.B. :— (*i*) Answer *three* questions from Section I and *three* questions from Section II.

(*ii*) Answers to the two Sections should be written in separate answer-books.

(*iii*) Neat diagrams must be drawn wherever necessary.

(*iv*) Figures to the right indicate full marks.

(*v*) Assume suitable data, if necessary.

SECTION I

1. (*a*) Explain the following : [9]

(*i*) Full and complete binary trees.

(*ii*) List and explain in brief applications of binary tree.

(*iii*) Explain class & object in OOP concept.

(*b*) Write non-recursive algorithm for traversal of binary tree : [9]

(*i*) Inorder

(*ii*) Preorder.

P.T.O.

Or

2. (*a*) Draw binary search tree for data 12, 18, 20, 30, 35, 40, 42, 48, 52. If root is 40 and leafs are 12, 52, write Binary Search Tree (BST) search algorithm. [10]

(*b*) Explain the following : [8]

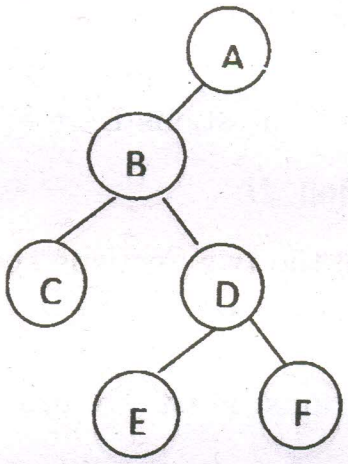

Fig. A binary tree

(*i*) What is array representation of given binary tree ?

(*ii*) What is linked representation of given binary tree ? What are important observations of linked representation ?

3. (*a*) Write algorithm for Breadth First Traversal of the graph. Also write its complexity. [8]