2071
B.A./B.Sc. (General) Fourth Semester
Computer Applications
CA07: Data Structure

Time allowed: 3 Hours   Max. Marks: 30

NOTE: *Attempt five questions in all, including Question No. IX (Unit-V) which is compulsory and selecting one question each from Unit I - IV.*

x-x-x

UNIT - I

I.   Describe the basics structure and complexity in data structure. Explain it in detail. (6)

II. Explain selection sort. And also explain the algorithm of it.   (6)

UNIT- II

III. What do you mean by linked list? Explain the circular list in detail.   (6)

IV. What do you mean by stacks? Explain empty and full operation in stacks.   (6)

UNIT - III

V.   Describe various operations used in queues. Explain it in detail.   (6)

VI. Define the representation in contiguous storage in tree. Explain the binary tree traversal in detail.   (6)

UNIT - IV

VII. What do you mean by graphs? Explain its applications in detail.   (6)

VIII. Differentiate between sequential and linked representation in graph.   (6)

UNIT - V

IX. Attempt the following:-
     a) Explain bubble sort? Write down the disadvantage of it.

     b) Explain expression evaluation of stack.

     c) Discuss the memory representation of queues.   (3x2)

x-x-x