



RG-1863

Second Year B. C. A. (Sem. III) Examination

April / May - 2008

303 - Advance 'C' & Data Structure

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

नीचे छापीये निम्नलिखित विगतो उत्तरवही पर अवश्य लपकी.  
Fill up suitably the details of signs on your answer book.

Seat No.:

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Name of the Examination :

Second Year B. C. A. (Sem. 3)

Name of the Subject :

303 - ADVANCE 'C' & DATA STRUCTURE

Subject Code No. : 1 8 6 3 Section No. (1, 2, ....) : Nil

Student's Signature

- (2) All questions are compulsory.
- (3) Figures to the right indicate full marks.

1 Answer in short : 12

- (1) Give the difference between user define function and inbuilt function.
- (2) What is call by value ? Can we pass array through this method ? If yes, how ?
- (3) Convert to Reverse Polish Notation :
  - (i)  $a * (b + c) - (c + d / (a - b))$
  - (ii)  $x + (y * z) + (p - (q * r) / z)$
- (4) Explain with help of diagram circular queue, also give diagram when circular queue is full and empty.
- (5) What is pointer ? List out the operations on pointer.
- (6) Explain row major representation of 2-D array.

5/2  
312-314  
8

(a) Explain in detail priority queue, its operations and applications giving suitable example. 35, 43, 42 8

(b) Write algorithm to convert infix to prefix and infix to postfix. 29, 27 8

Somehow

Some bar  
2

(a) Explain in detail Array. Also explain how it differs with pointer. 8

(b) Write algorithm for push ( ) and pop ( ) for stack implemented through singly linked list. 48, 49. 8

Some bar  
2  
3  
37

Explain Dynamic Memory Allocation and static Memory Allocation with example. 48, 49. 8

(b) Which Searching Techniques are used to search an element. Explain Binary Search with example. 128. 8

OR  
(b) What is linked list? Write algorithm to create doubly linked list. 48, 49. 218. 8

4 (a) What is recursion? Explain its applications, advantages and disadvantages. 8

(b) Write a program that will read the data from two files and display it in sorted order. 8

OR  
4 (a) Explain various file opening mode with suitable example. 8

(b) Write a menu driven program that will allow following operations of student file have the fields. r.no., name, mark. 8

am  
12-20

- (1) Display all
- (2) Search particular r.no.
- (3) Exit.

5 Write short notes : (any two) 10

(1) Insertion sort 113

(2) User define function

(3) Pointer. 26

GCET