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C-1863

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Second Year B.C.A. (Sem. III) Examination
October / November – 2008
303 : Advance 'C' & Data Structure

Time : Hours]

[Total Marks : 70

Instructions :

(1)

नीचे दशांश देव निशानीवाणी विगतो उत्तरवही पर अवश्य लખवी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
S. Y. 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

Seat No. : 0 0 0 4 2 5

Student's Signature

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

1 Answer in short : 12

(i) Convert to Polish notations

(a) $a * (b - c) + ((a / c) - d)$

(B) $X + (y / (z - x)) / (y + z) * x$

(ii) Give difference between primitive and non-primitive data structure.

(iii) What is function prototype? Explain the prototype.
Float ab (int*, Char);

(iv) Explain through example 2-way merge sort.

(v) List out the application of linked list.

(vi) Explain the concept of call by reference.

2 (a) Explain in detail circular queue. Write algorithm to insert in circular queue. 8

(b) Write a program to reverse the singly linked list. 8

OR

2 (a) Explain in detail advantages and disadvantages of array and linked list. 8

(b) Write a program to merge two linked list into one. 8

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[Contd...

1 + 0 2

- 3 (a) Write a program to sum all the numbers between given range using recursion. ✓ 8 5 ✓
(b) Explain in detail memory representation of array. What do you mean by static memory allocation? 8
OR
(b) Write an algorithm to sort element using Insertion sort. ✓ 8 5
- 4 (a) Explain in detail concept of sequential access file and random access files. 8
(b) Write a program to create a file stud containing information rno, name, city. Also provide facility to perform a search on city. 8
OR
4 (a) Explain in detail structures. Also give example how to passing a structure to a function. ✓ 8 5
(b) Write a program to merge the content of the two files in the third file. ✓ 8 4
- 5 Write short notes : (any two) 10
(i) Recursion ✓
(ii) Selection sort
(iii) Sequential search. ✓ 7