

Sixth Semester B.E. Degree Examination, Jan./Feb. 2021 Advanced Computer Programming

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions, selecting at least TWO questions from each part.

		PART – A	
1	a.	Define the following concept	
		i) Value parameters ii) Reference parameters	
		iii) Return Values iv) Recursive function	(10 Marks)
	b.	Explain the following:	
		i) Designing test data ii) Debugging	(10 Marks)
2	a.	Write the following concept	
		i) Indexing a C++ array. ii) Row and column major mappings.	(10 Marks)
	b.	Write a program for over loading Binary minus, unary minus and increment.	(10 Marks)
3	a.	Explain the following	
		i) Abstract Data Type of stack.	
		ii) Derived class and Inheritance.	(10 Marks)
	b.	Write a code for parentheses matching.	(10 Marks)
4	a.	Explain formula based representation in queue.	(10 Marks)
	b.	Explain machine shop simulation pbm.	(10 Marks)
$\underline{PART} - \underline{B}$			
5	a.	Define dictionary with its operation.	(04 Marks)
	b.	Compare skiplist and hashing.	(06 Marks)
	c.	Explain insertion and deletion of elements in skiplist and give the code for	
		operation.	(10 Marks)
			,
6	a.	Define tree. Explain elements of tree.	(04 Marks)
	b.	Explain Binary tree traversal with a program.	(10 Marks)
	C.	Construct a tree for the following.	,
		i) $((c-a)+(x+y)) / ((c+b)*(c*a))$ ii) $((a+b)+c)+d$ iii) $(a*b)+(c-d)$	(06 Marks)
			,
7	a.	Explain Insertion into a max heap and deletion from a max heap.	(10 Marks)
	b.	Explain Insertion and deletion, melding max HBLT.	(10 Marks)
			,
8	a.	Explain Abstract data type of BSTree and indexed BSTree.	(10 Marks)
	b.	Explain the following.	
		i) Binary search tree ii) m-way search tree iii) B tree of order m.	(10 Marks)

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Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.

2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8=50, will be treated as malpractice.