SARDAR PATEL UNIVERSITYNO. of Printed Pages 2. M.Sc.(IT). (Sem-1)

PS01CINT02:	Advanced Pr	rogramming (Concepts &	k Data Structures

Q-1		Sele	g questions.				
	(1)	Default major of any array in C++ language is					
		A	Row-major	В	Column-major		
		C	Cell-major	D	None of the above		
	(2)	By default, the members of class are					
		A.	public	B.	protected		
		C.	private	D.	None of the Above		
	(3)		cess root last.				
		A.	Preorder	В.	Inorder		
		C.	Postorder	D.	All of these		
	(4)	How many destructors can class have?					
		A.	0	B.	1		
		C.	2	D.	Any number		
	(5)	A pi	ure virtual function is equated to	·			
		A.	Zero	В.	-1		
		C.	1	D.	NULL		
	(6)	A st	ack is type of data structure?				
		A.	Linear	В.	Non-Linear		
		C.	Both (A) and (B)	D.	None of the Above		
	(7)	Whe	When new data are to be inserted into a data structure, but there is no available				
		space; this situation is usually called?					
		A.	underflow	B.	housefull		
		C.	overflow	D.	saturated		
	(8)	Which of the following name does not relate to stacks?					
		A	FIFO list	В	LIFO list		
		C	Push down list	D	None of these		

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Q-2		Do as directed. (ATTEMPT ANY SEVEN)	14
	(1)	**	
	(2)	Differentiate: Linear and Non-linear data structure.	
	(3)	What is 'Queue'? How does it differ from a 'Stack'?	
	(4)	List out only those operators which cannot be overloaded in C++.	
	(5)	What is copy constructor?	
	(6)	Differentiate: Static binding and Dynamic binding.	
	(7)	What is function overloading?	
	(8)	Define pointer. Why it is required?	
	(9)	List out various modes of file management with their meaning.	
Q-3	A	Explain the basic terminology related to OOP's. List advantages and disadvantages of OOP's.	6
	В	Write a short note on:	6
		(I) Default arguments (II) Inline function	
		OR	
	В	Write a short note on Sequential file organization.	6
Q-4	A	Explain Binary operator overloading with an example.	6
	В	Write a brief note on hashing function.	6
		OR	
	B	What is a binary tree? Explain inorder, preorder and postorder traversal of a	6
		binary tree.	
Q-5	A	Write an algorithm to delete an element from a Simple Queue.	6
	В	What is Linked List? Write an algorithm for insertion of new element at the	6
		beginning of the singly Linked List.	Ū
		OR	
	В	Write an algorithm to insert an element into Circular Queue.	6
Q-6	A	Discuss the storage representation of binary tree.	6
	В	Write a brief note on Inheritance.	6
		OR	-
	В	Write a brief note on ISAM.	6
		Best of luck	