Paper / Subject Code: 50905 / Data Structures

(2	Write a C functi What are differe What is expressi What is Hashing quadratic probin	ree questions of right indicate furth assumptions when the acture. Different on to implement on tways to represent the following. Hash the following. Also find the	II marks rever no iate line Insertion sent gra an expr	ar and on sort. phs in	y with non-li	proper near co	er just	Ext.	ons es with example.	(5) (5)			
(b) (c) (d) (a)	Write a C functi What are differe What is expressi What is Hashing quadratic probin 63,	on to implement int ways to repre- tion tree? Derive g? Hash the follo g. Also find the	Insertions Insertions Insertion Inse	on sort. phs in ession	memo	ry?	lata st	ructur	es with example.	$\mathcal{N} \mathcal{N} \mathcal{N}$			
(b) (c) (d) (a)	Write a C functi What are differe What is expressi What is Hashing quadratic probin 63,	on to implement int ways to repre- tion tree? Derive g? Hash the follo g. Also find the	Insertions Insertions Insertion Inse	on sort. phs in ession	memo	ry?	iata st	ructur	es with example.	$\mathcal{N} \mathcal{N} \mathcal{S}$			
(c) (d) (a)	What are differe What is expressi What is Hashing quadratic probin 63,	on tree? Derive ? Hash the follo	sent gra an expr wing da	phs in ession	memo		200	37.50	9, 7, 7, 5, 9, 4, E	(5)			
(d) (a) (b)	What is expression What is Hashing quadratic probin 63,	on tree? Derive g? Hash the follo	an expr wing da	ession	6		. W.	1 00 7 2 3	6.5 1 1 1 1 1 1 1	(5)			
(b)	quadratic probin 63,	g. Also find the	_	ıta in a		What is expression tree? Derive an expression tree for $(a+(b*c))/((d-e)*f)$							
	Write a recursive		What is Hashing? Hash the following data in a table of size 10 using linear probing quadratic probing. Also find the number of collisions. 63, 82, 94, 77, 53, 87, 23, 55, 10,44										
		e function to per	form pr	e-orde	r trave	rsal of	a bin	ary tre	ee of Table	(8)			
	Given an array int a[] = $\{23,55,63,89,45,67,85,99\}$. Calculate address of a[5] if base address is 5100.									(2)			
(a)										(10)			
(b)	Demonstrate step by step insertion of the following elements in an AVL tree. 63, 9, 19,18,108,99,81,45									(10)			
(a)	Write a C program to implement circular linked list that performs following functions -Insert a node in the beginning -Insert a node in the end -Count the number of nodes -Display the list												
(b)	Given the frequency for the following symbols, compute the Huffman code for each symbol.									(8)			
S		Symbol	A	B	C	D	Е	F					
		Frequency	9	12	5	45	16	13					
(a) (b)	Explain Double Ended Queue. Write a C program to implement Double Ended Queue Given the postorder and inorder traversal of a binary tree, construct the original tree: Postorder: DEFBGLJKHCA Inorder: DBFEAGCLJHK									(12) (8)			
	I. B-tree a II. Polynon	nd splay tree nial representation	Ý			g linke	ed list			(20)			
	b) a)	-Insert a node in -Insert a node in -Insert a node in -Count the numb -Display the list b) Given the freque symbol. a) Explain Double b) Given the postor Postorde Inorder Explain followir I. B-tree a II. Polynon	-Insert a node in the beginning -Insert a node in the end -Count the number of nodes -Display the list b) Given the frequency for the following symbol. Symbol Frequency a) Explain Double Ended Queue. We Given the postorder and inorder Postorder: DEFBGL Inorder: DBFEAGE Explain following with suitable of I. B-tree and splay tree II. Polynomial representation	-Insert a node in the beginning -Insert a node in the end -Count the number of nodes -Display the list b) Given the frequency for the following sysymbol. Symbol A Frequency 9 a) Explain Double Ended Queue. Write a Count the postorder and inorder traversation Postorder: DEFBGLJKHC Inorder: DBFEAGCLJ Explain following with suitable examples I. B-tree and splay tree II. Polynomial representation and a	-Insert a node in the beginning -Insert a node in the end -Count the number of nodes -Display the list b) Given the frequency for the following symbols symbol. Symbol A B Frequency 9 12 a) Explain Double Ended Queue. Write a C progration of the postorder and inorder traversal of a language of the postorder: D E F B G L J K H C A Inorder: D B F E A G C L J H K Explain following with suitable example (any to the postorder) of the postorder and splay tree II. Polynomial representation and addition	-Insert a node in the beginning -Insert a node in the end -Count the number of nodes -Display the list b) Given the frequency for the following symbols, compaymbol. Symbol A B C Frequency 9 12 5 a) Explain Double Ended Queue. Write a C program to Given the postorder and inorder traversal of a binary Postorder: D E F B G L J K H C A Inorder: D B F E A G C L J H K Explain following with suitable example (any two) I. B-tree and splay tree II. Polynomial representation and addition using	-Insert a node in the beginning -Insert a node in the end -Count the number of nodes -Display the list b) Given the frequency for the following symbols, compute the symbol. Symbol A B C D Frequency 9 12 5 45 a) Explain Double Ended Queue. Write a C program to imple Given the postorder and inorder traversal of a binary tree, or Postorder: D E F B G L J K H C A Inorder: D B F E A G C L J H K Explain following with suitable example (any two) I. B-tree and splay tree II. Polynomial representation and addition using linker	-Insert a node in the beginning -Insert a node in the end -Count the number of nodes -Display the list b) Given the frequency for the following symbols, compute the Hufsymbol. Symbol A B C D E Frequency 9 12 5 45 16 a) Explain Double Ended Queue. Write a C program to implement b) Given the postorder and inorder traversal of a binary tree, construence of the postorder: D E F B G L J K H C A Inorder: D B F E A G C L J H K Explain following with suitable example (any two) I. B-tree and splay tree II. Polynomial representation and addition using linked list	-Insert a node in the beginning -Insert a node in the end -Count the number of nodes -Display the list b) Given the frequency for the following symbols, compute the Huffman symbol. Symbol A B C D E F Frequency 9 12 5 45 16 13 a) Explain Double Ended Queue. Write a C program to implement Doubl Given the postorder and inorder traversal of a binary tree, construct the Postorder: D E F B G L J K H C A Inorder: D B F E A G C L J H K Explain following with suitable example (any two) I. B-tree and splay tree II. Polynomial representation and addition using linked list	-Insert a node in the beginning -Insert a node in the end -Count the number of nodes -Display the list b) Given the frequency for the following symbols, compute the Huffman code for each symbol. Symbol A B C D E F Frequency 9 12 5 45 16 13 a) Explain Double Ended Queue. Write a C program to implement Double Ended Queue b) Given the postorder and inorder traversal of a binary tree, construct the original tree: Postorder: D E F B G L J K H C A Inorder: D B F E A G C L J H K Explain following with suitable example (any two) I. B-tree and splay tree II. Polynomial representation and addition using linked list			

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