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REG NO : 19BCS0012

SUBJECT: DATA STRUCTURE

COURSE: CSC2001

CODE

SLOT: ETH+TE1

Program Frat: Hindude Zstolioih #Inchade 13tdlib-h? #include ! Struct node: 2 int dator; Struct node + Prev; Staut node next; 3+P, *head, +old, *h, *1: Void Create Vi Vord! void insertingat begin!! void insertall! void deletifist(1); void deletemid!! void display int moun () inti, D; dos print/("h):7for create list"); prints ("\n 2.7 - in sent at begin") Mintel ("In 3-insent at middle") Printy ("Intr-dolete at yirst): Printy ("In 5 - deletion et middle"); print fulnt-display the dements") Doints ("In7 - to escist") Trind I'm In Into your thoice:"); scart (" 1.d", & 6h=); Switch(ch) & car 1: create(); break; Case 2: insert begin(); · Labreals: Case 3: insertmid (): break: Cookh: delete fisst! break; Cax 5. deletemind ():

Carb. display(); break Cart: ExitC) break; -default. Printy ("Enter Correct option") 33 while (D. Vic.7) -setch(1) y Void createl) Einti, n: Printy ("In Enton the no. of moder") Scorp ("Y. d'in sh); Pointy I'Vn In Enter Values"): heard: (struct hades) mallor (size of (struct Scarf (11.1.d", & head >data); rods); hood-> next = Null ; hood > Prev= Null; old - head; dor (120, 120; 14+) n= (struct node) mallo (esize of (stout Scarf (11 / di, bn -> infor).

N-> Next = NULL; N-> PREN = Nall; $old \rightarrow real = 0$ n-> Prev=old; old: old snort: 33 Void 'msork begins) Sint d: Painty ("Enter clamant:") Scan (" 'd", &d); N= (struct node) malloc (size of) stouct rode 1-> data -0; nost-head; kead > Preu-nj h -> paer - Nully head = n; void meertmids Inti, Pos, ele P= old = heads printy ("In Entor Position of doment:" scory ("1'd", repos); pointd (" In Enter the element: ");

Sway L'ild " Rede); n= (Stand pode) mallocks ze of 1stant nodo) n-Diglo = ele; des(i=1 ; ix= Ros; 144) 9 01d. P. · P=P->neat; 3 old = neat =n: 2000 = old. NO rest = P; P-> Prev=in; void deletatiost() 3 struct node to del; 1/2 (heard= - Null) f point !" In oothing to delete"! 2 del=head; head-head-mout head > prevo - Nuli free (del); 33 Void defetenids à int pos; Print ["In Enter the position.") Scant (11.1/001) pos) stout node à curent.

current = heard; for (i=1 :iLps 80 euront != NULL j'HA & avrent = Cursent -> next Jiy (Pos = -1) & void deletefirst()3 of current > Prev next = Current -> rest Current -> next -> prev- current -> prev free (current); Pointd ("In the alamont deleted"): Usid displaye) 2 stouct rode temp; 1 N D=12 if (head=Null) pointy Ulist is emptyling else & temp - head; Print luin the doments are!"). colile (Alemp! = Null) Sprint] (" led" temp -> oloceali temp= temp> nesut: 4 2, 29

1) Convert the Jollowing infix expressions into the Postif expression. (B+B) ((C+D) - (O'E) er (A-B) · (C+D) ABT CD+ DE 3 [AB-CDd) ABT CD+/-DE* D (MD-) * (CO+) DEAB-CD++J PABACDA/DE+-] (A+B) /(CC+O) - (DPE) (C+D-E)*F/G AB+ CD+ E-+F/G ABT CD+ DE* AB+CD+1-DE* => EAB+CD+IDE+-T -> AB+ CD+E-+FAGI (A +B) & C - (D-E) * (F+ G)) AB + C + - DE - MFG+ (AB+C+) - (DE-FG) AB+C DE-FS.+AA-

Poedix! 6) (A+B)/(C+D)-(D+F) (A-B) + (c-D) 3 (+AB) (+10) -(+10E) = (-AB) (+(0)) 3/+AB+CD-(+DE) =) &-AB+C 11 - FABALDADE (C) (A+B) * (C+D-F) + F/G =) (+AB) + (D-E) + F/G S) *+ AB * - * (DE) FG (d) ((A+B)+C-(D-E)1(F+G) Drefix: => (GAB) P((-DE) 1(+FG))-2) (CAB) + (-1 (-DE) (4FW) =) -++ AB(1-DE+FG) 11/49/10/10x /2001 in the the special transfer

(3)	convert the following tylin expression into			
	Postfix osprossion using stack.			
	a) . A-(B/c+(D). F + F)/G)+i4			
4	Front string but stock genelar stock			
	A-(B/c+10.4E+F)/Q)++ A			
-	A-BIC+(D.1.ERF)/AM			
	A-CB/C+CD1-E=F/GOH AB			
	A-18/14 (D°1. EKF)/G+H +AB - (1			
	A-18/c+(0%ERF)/GRIA ABC -(1			
	11 ABC - C/+			
	MBE/ - (+(
	1 1 ABCID - (+C			
	11 - K+C.10			
1 4	A-CB/C+CD/EOP) ABC/DE - (+(.1.			
	GOH ABCIDE.6 (+(*			
	ABCIDE" LF - CHILA.			
	ABCIDE 1.F (+			
	ABCIDE°/-F* -(+1			
	ABC (DE° 1. FPG) - (+/	V		
	ABCIDEO/OFAGAT			
	1830/DE1.FOG1+1+ +*			
	E-B/(+(D1/6E+F)/G+H ABC/DE.1.F+G	1+ #		

	(A-2+(B+C)/D+E)+F						
	Input Hoing	bat put stack	sperator stack				
	(A-2 (B+0)(D*E)+1		(
	(A-)*(B+0/0°)+1	A	- (
	6.2° (BAC) DOE) HE	A 2					
	(A-20(BHC)/DOE)+F		1 (*				
	(4.2 (BAC)/D*E)4F	A2	-(+(
	(A-2°(B+3/D*E) E	A2B	-(*(-/*)*				
	(A-2 (B+9/DE)/E	A2B					
	(A-2°(BAC)/0°E)/F		-(*(+	-			
	11	A2BC+	1	ee-198 ⁸			
	11	A2BC+	- (I.				
	11	A2BC+D					
	~1	A2BC+D1		aradi de			
	"	AZBC+*DIE	-(*				
	• 1	AZBC+ DIE.					
	(A-) *(B+c)/D*E)F	AZBC+ D/F -	+				
		AZBEFADIEFF	t				
		A 2BC+ D/F -1	F+ :				
-							