

SET NO:1

G.PULLAIAH COLLEGE OF ENGINEERING &TEC CHNOLOGY

(I B.Tech-II Sem- I-MID objective, Branch: CSE)

SET NO:1

G.PULLAIAH COLLEGE OF ENGINEERING &TEC CHNOLOGY (I B.Tech-II Sem- I-MID objective, Branch: CSE)

Subject: DS Max. Marks: 10 M Time : 20 Minutes Date : 08-03-2017		Subject: I Time : 20	OS 0 Minutes	-		Max. Marks: 10 M Date : 08-03-2017						
	Invigilator Signature				Roll No: _		Invigilato	r Signature:				
Answer all questions						-	Answer all quest	tions				
A technique for direct search is			[]	1. A techniqu	e for direct sear	rch is		[]		
A) Binary Search (B) Linear Search (G	C) Tree Search (D) Has	ning			(A) Binary Sea	arch (B) Linear S	Search (C) Tree Sea	arch (D) Hashi	ing			
2. If h is any hashing function and is	used to hash n keys in	o a ta	ble of	size m,	2. If h is any h	nashing function	n and is used to ha	ash n keys into	a table	e of size m,		
where n<=m, the expected number of	of collisions involving a	parti	cular k	ey x is[]	where n<=m,	the expected n	umber of collisior	ns involving a	particul	ar key x is[]		
A) less than 1. (B) less than n. (C) les	ss than m. (D) less than	n/2.			(A) less than 2	1. (B) less than r	n. (C) less than m.	(D) less than	n/2.			
3. Key value pairs is usually seen in			[]	3. Key value	pairs is usually s	seen in		[]		
A) Hash tables (B) Heaps (C) I	Both a and b (D) Skip	list			(A) Hash tab	les (B) Heaps	s (C) Both a and	d b (D) Skip	list			
. The goal of hashing is to produce a	a search that takes		[]	4. The goal of	hashing is to p	roduce a search th	hat takes	[]		
A)O(1) time (B) O(n2) time (C) O(log n) time (D) O(n log n) time					(A)O(1) time (B) O($n2$) time (C) O($log n$) time (D) O($log n$) time							
5. The best data structure to check whether an arithmetic expression has					5. The best data structure to check whether an arithmetic expression has							
palanced parentheses is a			[]	balanced pare	entheses is a			[]		
A) queue (B) stack (C) t	ree (D) list				(A) queue	(B) stack	(C) tree	(D) list				
5. In the worst case, the number of o	comparisons needed to	seard	ch a sir	ıgly	6. In the wors	st case, the num	nber of compariso	ns needed to	search	a singly		
inked list of length n for a given eler	nent is		[]	linked list of I	ength n for a gi	ven element is		[]		
A) $\log_2 n$ (B) $n/2$ (C) I	$og_2 n - 1$ (D) n				(A) $\log_2 n$	(B) n/2	(C) $\log_2 n - 1$	(D) n				
7. The process of accessing data stor	ed in a serial access m	emory	ı is sim	ilar to	7. The proces	s of accessing d	lata stored in a se	rial access me	mory is	similar to		
nanipulating data on a			[]	manipulating	data on a			[]		
A) heap (B) queue(C) stack (D) binar	y tree				(A) heap (B) o	queue(C) stack (D) binary tree					
8. Which data structure is used for ir	nplementing recursior	ı? []	8. Which data	a structure is us	ed for implement	ing recursion?] \]		
A) Queue. (B) Stack. (C) A	Arrays (D) List				(A) Queue.	(B) Stack.	(C) Arrays	(D) List				
). On which principle does stack wor	·k?		[]	9. On which p	orinciple does st	tack work?		[]		
A) FILO (B) FIFO (C)	LILO (D) Both a	and o	above	5	(A) FILO	(B) FIFO	(C) LILO	(D) Both a	and c a	bove		
.0. The dummy header in linked list	contain		[]	10. The dumr	ny header in lin	ked list contain		[]		
A) first record of the actual data					` '	d of the actual of						
B) last record of the actual data					` '	d of the actual c						
C) pointer to the last record of the a	ictual data						of the actual data	9				
D) middle record of the actual data					(D) middle re	cord of the actu	ıaı data					

11. On which principle does queue work? []	11. On which principle does queue work?
(A) FILO (B) FIFO (C) LILO (D) Both a and c above	(A) FILO (B) FIFO (C) LILO (D) Both a and c above
12. The postfix expression: 5 6 2 + * 12 4 /- when evaluated gives the following	12. The postfix expression: 5 6 2 + st 12 4 /- when evaluated gives the following
result: []	result: []
(A) 37 (B) -37 (C) 40 (D) 3	(A) 37 (B) -37 (C) 40 (D) 3
13. Which out of these is a non-linear data-structure []	13. Which out of these is a non-linear data-structure []
(A) arrays (B)linked-lists (C) queues (D) tree	(A) arrays (B)linked-lists (C) queues (D) tree
14. The functions used for dynamic memory allocation are [14. The functions used for dynamic memory allocation are []
(A) delete and free (B) free and realloc	(A) delete and free (B) free and realloc
(C) malloc and free (D) malloc and calloc	(C) malloc and free (D) malloc and calloc
15. A node in a double linked list comprises of []	15. A node in a double linked list comprises of []
(A) information field (B) information field and next pointer	(A) information field (B) information field and next pointer
(C) information field, next (D) information field, next pointer, previous	(C) information field, next (D) information field, next pointer, previous
pointer & previous pointer pointer and thread field	pointer & previous pointer pointer and thread field
16. Postfix notation is also known as []	16. Postfix notation is also known as []
(A) polish notation (B) reverse polish notation	(A) polish notation (B) reverse polish notation
(C) post notation (D) post-operator notation	(C) post notation (D) post-operator notation
17. The deque in which insertion is done at one end and deletion from both	17. The deque in which insertion is done at one end and deletion from both
ends: []	ends: []
(A) input-restricted deque (B) output-restricted deque	(A) input-restricted deque (B) output-restricted deque
(C) input-output restricted deque (D) Any of the above	(C) input-output restricted deque (D) Any of the above
18. The estimated amount of time required in executing an algorithm is	18. The estimated amount of time required in executing an algorithm is
referred to as of the algorithm. []	referred to as of the algorithm. []
(A) time complexity (B) space complexity	(A) time complexity (B) space complexity
(C) time and space complexity (D) none of the above	(C) time and space complexity (D) none of the above
19. The main measures for the efficiency of an algorithm are []	19. The main measures for the efficiency of an algorithm are []
(A) processor and memory (B) complexity and capacity	(A) processor and memory (B) complexity and capacity
(C) time and space (D) data and space	(C) time and space (D) data and space
20. The worst case occurs in linear search algorithm when:	20. The worst case occurs in linear search algorithm when:
(A) item is in the middle of the (B) item is not in the array	(A) item is in the middle of the (B) item is not in the array
array	array
(C) item is the last element in the (D) item is the last element in the	(C) item is the last element in the (D) item is the last element in the
array or not in the array at-all	array or not in the array at-all



(A) queue

(B) stack

(C) tree

(D) list

SET NO:2

GPCET Ploneeting Innovative Education

G.PULLAIAH COLLEGE OF ENGINEERING &TEC CHNOLOGY

(D) list

SET NO:2

G.PULLAIAH COLLEGE OF ENGINEERING &TEC CHNOLOGY (I B. Tech-II Sem- I-MID objective, Branch: CSE)

(I B.Tech-II Sem- I-MID objective, Branch: CSE)	(I B.Tech-II Sem- I-MID objective, Branch: CSE)						
Subject: DS Max. Marks: 10 M	Subject: DS Max. Marks: 10 M						
Time: 20 Minutes Date: 08-03-2017	Time: 20 Minutes Date: 08-03-2017						
Roll No: Invigilator Signature:	Roll No: Invigilator Signature:						
Answer all questions	Answer all questions						
. In the worst case, the number of comparisons needed to search a singly	1. In the worst case, the number of comparisons needed to search a singly						
nked list of length n for a given element is []	linked list of length n for a given element is []						
A) $\log_2 n$ (B) $n/2$ (C) $\log_2 n - 1$ (D) n	(A) $\log_2 n$ (B) $n/2$ (C) $\log_2 n - 1$ (D) n						
. The process of accessing data stored in a serial access memory is similar to	2. The process of accessing data stored in a serial access memory is similar to						
nanipulating data on a []	manipulating data on a []						
A) heap (B) queue(C) stack (D) binary tree	(A) heap (B) queue(C) stack (D) binary tree						
. Which data structure is used for implementing recursion? []	3. Which data structure is used for implementing recursion? []						
A) Queue. (B) Stack. (C) Arrays (D) List	(A) Queue. (B) Stack. (C) Arrays (D) List						
. On which principle does stack work?	4. On which principle does stack work? []						
A) FILO (B) FIFO (C) LILO (D) Both a and c above	(A) FILO (B) FIFO (C) LILO (D) Both a and c above						
. The dummy header in linked list contain []	5. The dummy header in linked list contain []						
A) first record of the actual data	(A) first record of the actual data						
3) last record of the actual data	(B) last record of the actual data						
C) pointer to the last record of the actual data	(C) pointer to the last record of the actual data						
D) middle record of the actual data	(D) middle record of the actual data						
. A technique for direct search is	6. A technique for direct search is []						
A) Binary Search (B) Linear Search (C) Tree Search (D) Hashing	(A) Binary Search (B) Linear Search (C) Tree Search (D) Hashing						
. If h is any hashing function and is used to hash n keys into a table of size m,	7. If h is any hashing function and is used to hash n keys into a table of size m,						
here n<=m, the expected number of collisions involving a particular key x is[]	where n<=m, the expected number of collisions involving a particular key x is[]						
A) less than 1. (B) less than n. (C) less than m. (D) less than n/2.	(A) less than 1. (B) less than n. (C) less than m. (D) less than n/2.						
. Key value pairs is usually seen in []	8. Key value pairs is usually seen in []						
A) Hash tables (B) Heaps (C) Both a and b (D) Skip list	(A) Hash tables (B) Heaps (C) Both a and b (D) Skip list						
. The goal of hashing is to produce a search that takes []	9. The goal of hashing is to produce a search that takes []						
A)O(1) time (B) O(n2) time (C) O(log n) time (D) O(n log n) time	(A)O(1) time (B) O(n2) time (C) O(log n) time (D) O(n log n) time						
0. The best data structure to check whether an arithmetic expression has	10. The best data structure to check whether an arithmetic expression has						
alanced parentheses is a	balanced parentheses is a						

(A) queue

(B) stack

(C) tree

11. Postfix notation is also known as	ſ	1	11. Postfix notation is also know	n as	1	1
(A) polish notation (B) reverse polish notation	·	,	(A) polish notation	(B) reverse polish notation	-	-
(C) post notation (D) post-operator notation			• • •	(D) post-operator notation		
12. The deque in which insertion is done at one end and del	etion fror	n hoth	12. The deque in which insertion		etion fror	m both
ends:	101111111111111111111111111111111111111	1	ends:		1	1
(A) input-restricted deque (B) output-restricted	ı H denne	,	(A) input-restricted deque	(B) output-restricted	l deque	-
(C) input-output restricted deque (D) Any of the abov	-		(C) input-output restricted dequ			
13. The estimated amount of time required in executing an		is	13. The estimated amount of tir	• • •		ı is
referred to as of the algorithm.	l	1	referred to as of the algo	,	[1
(A) time complexity (B) space complexit	ι V	,	(A) time complexity	(B) space complexity	,	•
(C) time and space complexity (D) none of the abo			(C) time and space complexity	(D) none of the above		
14. The main measures for the efficiency of an algorithm are		1	14. The main measures for the	, ,		1
(A) processor and memory (B) complexity and	-	1	(A) processor and memory	(B) complexity and o	=	,
(C) time and space (D) data and space	capacity		(C) time and space	(D) data and space	арасту	
15. The worst case occurs in linear search algorithm when:			15. The worst case occurs in line	` '		
(A) item is in the middle of the (B) item is not in the	aarrav		(A) item is in the middle of the	(B) item is not in the	arrav	
	array		array	(2) 10011110 1100 1111 0110	uu,	
array (C) item is the last element in the (D) item is the last	alamant i	in the	(C) item is the last element in th	e (D) item is the last o	element	in the
array array or not in the			array	array or not in the a		
16. On which principle does queue work?	array at-c	1	16. On which principle does que	•	[1
(A) FILO (B) FIFO (C) LILO (D) Both a	l and cabo	1	, , ,	(C) LILO (D) Both a a	י and c abc	ν ,
17. The postfix expression: $5.62 + *12.4$ /- when evaluated			17. The postfix expression: 5 6 2			
result:	l Bives rije	1	result:	TE TO WHEN EVALUATED ?]	1
(A) 37 (B) -37 (C) 40 (D) 3	ι	1	(A) 37 (B) -37 (C) 4	40 (D) 3	L	,
18. Which out of these is a non-linear data-structure	r	1	18.Which out of these is a non-l	• •	Γ	1
	l	1	(A) arrays (B)linked-lists		L	J
	г	1	19. The functions used for dyna	` ' '	ſ	1
19. The functions used for dynamic memory allocation are	l	1		and realloc	L	J
(A) delete and free (B) free and realloc			, ,	loc and calloc		
(C) malloc and free (D) malloc and calloc	r	1	20. A node in a double linked lis		ſ	1
20. A node in a double linked list comprises of	l vt nainta			(B) information field and nex	ι vt nointe	r
(A) information field (B) information field and ne	•		, ,	(D) information field, next p	•	
(C) information field, next (D) information field, next p		evious	pointer & previous pointer	pointer and thread field	Jillel, pi	cvious
pointer & previous pointer pointer and thread field			politici & previous politici	pointer and thread field		



SET NO:3

G.PULLAIAH COLLEGE OF ENGINEERING &TEC CHNOLOGY

(I B.Tech-II Sem- I-MID objective, Branch: CSE)

SET NO:3

G.PULLAIAH COLLEGE OF ENGINEERING &TEC CHNOLOGY (I B.Tech-II Sem- I-MID objective, Branch: CSE)

Subject: DS			Marks:		Subject:				ax. Mark	
Time: 20 Minutes	T	Date	: 08-	-03-17		20 Minutes	T	Da		8-03-2017
Roll No:		or Signature:			Roll No:			r Signature:		
	Answer all ques	stions					Answer all quest	tions		
 The goal of hashing is to p 	roduce a search t	that takes	[]	1. The goal o	f hashing is to p	roduce a search t	hat takes	[]
(A)O(1) time (B) O(n2) time	(C) O(log n) tim	e (D) O(n log n) t	ime		(A)O(1) time	(B) O(n2) time	(C) O(log n) time	e (D) O(n log r	n) time	
The best data structure to	check whether a	ın arithmetic exp	ression l	has	2. The best d	ata structure to	check whether a	n arithmetic e	expression	า has
balanced parentheses is a			[]	balanced par	entheses is a			[]
(A) queue (B) stack	(C) tree	(D) list			(A) queue	(B) stack	(C) tree	(D) list		
3. In the worst case, the nun	nber of compariso	ons needed to se	arch a si	ingly	3. In the wor	st case, the nun	nber of compariso	ns needed to	search a	singly
linked list of length n for a g	iven element is		[]	linked list of	length n for a g	iven element is		[]
(A) $\log_2 n$ (B) $n/2$	(C) $\log_2 n - 1$	(D) n			(A) $log_2 n$	(B) n/2	(C) $\log_2 n - 1$	(D) n		
4. The process of accessing of	data stored in a se	erial access memo	ory is sir	milar to	4. The proces	ss of accessing o	data stored in a se	rial access me	emory is s	imilar to
manipulating data on a			[]	manipulating	g data on a			[]
(A) heap (B) queue(C) stack	(D) binary tree				(A) heap (B)	queue(C) stack	(D) binary tree			
5. Which data structure is us	sed for implemen	ting recursion?	[]	5. Which dat	a structure is us	sed for implement	ing recursion	? []
(A) Queue. (B) Stack.	(C) Arrays	(D) List			(A) Queue.	(B) Stack.	(C) Arrays	(D) List		
6. On which principle does s	tack work?		[]	6. On which	principle does s	tack work?		[]
(A) FILO (B) FIFO	(C) LILO	(D) Both a an	d c abov	⁄e	(A) FILO	(B) FIFO	(C) LILO	(D) Both a	and c abo	ove
7. The dummy header in link	ked list contain		[]	7. The dumm	ny header in link	ked list contain		[]
(A) first record of the actual						rd of the actual				
(B) last record of the actual (d of the actual				
(C) pointer to the last record		ta .					l of the actual data	a		
(D) middle record of the acto 8. A technique for direct sea			ſ	1	` '	ecord of the acture of the contract of the con			ſ	1
(A) Binary Search (B) Linear :		earch (D) Hashing		J	·		Search (C) Tree Se	arch (D) Hash	ι ing	,
9. If h is any hashing function	• •			size m			n and is used to ha		_	of size m
where n<=m, the expected r		•			•	_	number of collision	•		
(A) less than 1. (B) less than		• .		KC y A IS[]		-	n. (C) less than m.	_	-	i key x ist
10. Key value pairs is usually		. (D) icss triair ii/	 [1	• •	e pairs is usually	• •	. (<i>D)</i> 1033 tilali	11/ 2 .	1
(A) Hash tables (B) Heap		dh (D) Skiplist		1	•	•	s (C) Both a and	dh (D) Shin	l lict	1
(A) Hasii tables (b) Heap	s (C) BUIII a dii	u b (b) skip list			(A) Hasiildi	лез (в) пеар	s (C) DULITA dill	אכ ניטן אוף	IISt	

(A) polish notation (B) reverse polish notation (C) post notation (D) post-operator notation (D) and post-operator notation (D) note not post-operator notation (D) and post-operator n
12. The deque in which insertion is done at one end and deletion from both ends: [] (A) input-restricted deque (B) output-restricted deque (C) input-output restricted deque (D) Any of the above (C) input-output restricted deque (D) Any of the above (D) Any of the above (D) Any of the above (D) Any of the algorithm is referred to as of the algorithm. [] (A) time complexity (B) space complexity (D) none of the above (D) data and space complexity (D) data and space (D) item is in the middle of the array array (D) item is the last element in the array array or not in the array at-all (A) FILO (B) FIFO (C) LILO (D) Both a and c above (A) imput-restricted deque (D) Any of the above (C) input-output restricted deque (D) Any of the above (C) input-output restricted deque (D) Any of the above (C) input-output restricted deque (D) Any of the above (D) Any of the above (C) input-output restricted deque (D) Any of the above (D) Any of the above (C) input-output restricted deque (D) Any of the above (D) Any of the above (C) input-output restricted deque (D) Any of the above (D) Any of the above (C) input-output restricted deque (D) Any of the above (D) Any of the above (C) input-output restricted deque (D) Any of the above (D) Any of the above (D) Any of the above (C) imput-output restricted deque (D) Any of the above (C) imput-output restricted deque (D) Any of the above (D) Any of the above (C) imput-output restricted deque (D) Any of the above (D) Any of the above (D) Any of the above (C) imput-output restricted deque (D) Any of the above (D) Any of the above (C) imput-output restricted deque (D) Any of the above (C) imput-output restricted deque (D) Any of the above (D) A
ends: [] ends: [] ends: [] (A) input-restricted deque (B) output-restricted deque (C) input-output restricted deque (D) Any of the above (D) Any of the a
(A) input-restricted deque (B) output-restricted deque (C) input-output restricted deque (D) Any of the above (C) input-output restricted deque (D) Any of the above (C) input-output restricted deque (D) Any of the above (C) input-output restricted deque (D) Any of the above (D) Any of the apportunity (D)
(C) input-output restricted deque (D) Any of the above (D) input-output restricted deque (D) Any of the above (D) input-output restricted deque (D) Any of the above (D) input-output restricted deque (D) Any of the above (D) input-output restricted deque (D) Any of the above (D) Any
13. The estimated amount of time required in executing an algorithm is referred to as of the algorithm.
referred to as of the algorithm.
(A) time complexity (B) space complexity (C) time and space complexity (D) none of the above (C) time and space complexity (D) none of the above (C) time and space complexity (D) none of the above (D) data and space (D) da
(C) time and space complexity (D) none of the above (C) time and space complexity (D) none of the above (D) data and space (D) data an
14. The main measures for the efficiency of an algorithm are [] (A) processor and memory (B) complexity and capacity (C) time and space (D) data and space (C) time and space (D) data
(A) processor and memory (B) complexity and capacity (C) time and space (D) data and space (C) time and space (D) data and space (A) item is in the middle of the (B) item is not in the array array (C) item is the last element in the (C) item is the last element in the (D) item is the last element in the array array (C) item is the last element in the array or not in the array at-all array array or not in the array at-all (A) FILO (B) FIFO (C) LILO (D) Both a and c above (A) FILO (B) FIFO (C) LILO (D) Both a and c above (A) FILO (B) FIFO (C) LILO (D) Both a and c above (A) FILO (B) FIFO (C) LILO (D) Both a and c above (A) FILO (B) FIFO (C) LILO (D) Both a and c above (A) FILO (B) FIFO (C) LILO (D) Both a and c above (A) FILO (B) FIFO (C) LILO (D) Both a and c above (A) FILO (B) FIFO (C) LILO (D) Both a and c above (B) filo (C) time is the last element in th
(C) time and space (D) data and space (C) time and space (D) data and
15. The worst case occurs in linear search algorithm when: (A) item is in the middle of the array array (C) item is the last element in the array or not in the array at-all array array
(A) item is in the middle of the array array (C) item is the last element in the array array (C) item is the last element in the array array (C) item is the last element in the array array (C) item is the last element in the array at-all 16. On which principle does queue work? [] (A) FILO (B) FIFO (C) LILO (D) Both a and c above 17. The postfix expression: 5 6 2 + * 12 4 /- when evaluated gives the following result: [] (A) 37 (B) -37 (C) 40 (D) 3 18. Which out of these is a non-linear data-structure [] (A) item is in the middle of the (B) item is not in the array array array (A) item is in the middle of the (B) item is not in the array at-all array (B) item is not in the array array (C) item is the last element in the (D) item is the last element in the array at-all (A) FILO (B) FIFO (C) LILO (D) Both a and c above (B) item is not in the array array (C) item is the middle of the (B) item is not in the array array (C) item is the middle of the (B) item is not in the array array (B) item is not in the array array (C) item is the last element in the (D) item is the last element in the (D) item is the last element in the array array (C) item is the last element in the (D) item is the last element in the array array array (C) item is the last element in the (D) item is the last element in the array array array (C) item is in the middle of the (B) item is not in the array array array array (C) item is the last element in the (D) item is the last element in the (D) item is the last element in the array array array array array (C) item is the last element in the (D) item is the last element in the (D) item is the last element in the array array array array array or not in the array array array or not in the array array (A) FILO (B) FIFO (C) LILO (D) Both a and c above 17. The postfix expression: 5 6 2 + * 12 4 /- when evaluated gives the following array 18. Which out of these is a non-linear data-structure []
array (C) item is the last element in the array or not in the array at-all array array or not in the array at-all 16. On which principle does queue work? (A) FILO (B) FIFO (C) LILO (D) Both a and c above 17. The postfix expression: 5 6 2 + * 12 4 /- when evaluated gives the following result: (B) -37 (C) 40 (D) Both a and c above 17. The postfix expression: 5 6 2 + * 12 4 /- when evaluated gives the following result: (A) 37 (B) -37 (C) 40 (D) Both a and c above 17. The postfix expression: 5 6 2 + * 12 4 /- when evaluated gives the following result: (A) 37 (B) -37 (C) 40 (D) 3 (A) 37 (B) -37 (C) 40 (D) 3 18. Which out of these is a non-linear data-structure []
(C) item is the last element in the array or not in the array at-all array array array or not in the array at-all array array array or not in the array at-all array
array array or not in the array at-all 16. On which principle does queue work? [] (A) FILO (B) FIFO (C) LILO (D) Both a and c above (A) FILO (B) FIFO (C) LILO (D) Both a and c above 17. The postfix expression: 5 6 2 + * 12 4 /- when evaluated gives the following result: [] result: [] (A) 37 (B) -37 (C) 40 (D) 3 (A) 37 (B) -37 (C) 40 (D) 3 18. Which out of these is a non-linear data-structure []
16. On which principle does queue work? [] 16. On which principle does queue work? [] (A) FILO (B) FIFO (C) LILO (D) Both a and c above (A) FILO (B) FIFO (C) LILO (D) Both a and c above 17. The postfix expression: 5 6 2 + * 12 4 /- when evaluated gives the following result: [] result: [] (A) 37 (B) -37 (C) 40 (D) 3 (A) 37 (B) -37 (C) 40 (D) 3 18. Which out of these is a non-linear data-structure []
(A) FILO (B) FIFO (C) LILO (D) Both a and c above (A) FILO (B) FIFO (C) LILO (D) Both a and c above 17. The postfix expression: 5 6 2 + * 12 4 /- when evaluated gives the following result: [] result: [] (A) 37 (B) -37 (C) 40 (D) 3 (A) 37 (B) -37 (C) 40 (D) 3 18. Which out of these is a non-linear data-structure []
17. The postfix expression: 5 6 2 + * 12 4 /- when evaluated gives the following result: [] result: [A) 37 (B) -37 (C) 40 (D) 3 [] (A) 37 (B) -37 (C) 40 (D) 3 [] (A) 37 (B) -37 (C) 40 (D) 3 [] (A) 37 (B) -37 (C) 40 (D) 3
result: [] result: [] [] [] [[] [] [] [] [] []
(A) 37 (B) -37 (C) 40 (D) 3 (A) 37 (B) -37 (C) 40 (D) 3 18. Which out of these is a non-linear data-structure []
18. Which out of these is a non-linear data-structure [] 18. Which out of these is a non-linear data-structure []
(A) arrays (B) linked lists (C) quoues (D) tree
(A) arrays (B)linked-lists (C) queues (D) tree (A) arrays (B)linked-lists (C) queues (D) tree
19. The functions used for dynamic memory allocation are [] 19. The functions used for dynamic memory allocation are []
(A) delete and free (B) free and realloc (A) delete and free (B) free and realloc
(C) malloc and free (D) malloc and calloc (C) malloc and free (D) malloc and calloc
20. A node in a double linked list comprises of [] 20. A node in a double linked list comprises of []
(A) information field (B) information field and next pointer (A) information field (B) information field and next pointer
(C) information field, next (D) information field, next pointer, previous (C) information field, next (D) information field, next pointer, previous
pointer & previous pointer pointer and thread field pointer & previous pointer pointer and thread field



SET NO:4

G.PULLAIAH COLLEGE OF ENGINEERING &TEC CHNOLOGY

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(I B.Tech-II Sem- I-MID objective, Branch: C	(I B.Tech-II Sem- I-MID objective, Branch: CSE)							
U	. Marks:		Subject: I				x. Mark	
Time : 20 Minutes Date	: 08-	03-2017	Time : 20	0 Minutes	Invigilat	Dat on Signatura	e : 08	8-03-2017
Roll No: Invigilator Signature: _		Roll No: _			or Signature: _			
Answer all questions		_			Answer all que	stions	_	_
1. A technique for direct search is	[]	•	e for direct sea			[]
(A) Binary Search (B) Linear Search (C) Tree Search (D) Hashin	g		• •		Search (C) Tree S		-	
2. If h is any hashing function and is used to hash n keys into a	a table of	size m,	2. If h is any h	nashing function	n and is used to h	nash n keys into	a table o	of size m,
where n<=m, the expected number of collisions involving a pa	articular k	cey x is[]	where n<=m,	the expected n	number of collision	ons involving a p	articula	r key x is[]
(A) less than 1. (B) less than n. (C) less than m. (D) less than n,	/2.		(A) less than 1	1. (B) less than i	n. (C) less than m	n. (D) less than r	n/2.	
3. Key value pairs is usually seen in	[]	3. Key value	pairs is usually s	seen in		[]
(A) Hash tables (B) Heaps (C) Both a and b (D) Skip lis	st		(A) Hash tab	les (B) Heaps	s (C) Both a ar	nd b (D) Skip l	ist	
4. The goal of hashing is to produce a search that takes	[]	4. The goal of	hashing is to p	roduce a search	that takes	[]
(A)O(1) time (B) O(n2) time (C) O(log n) time (D) O(n log n)	time		(A)O(1) time ((B) O(n2) time	(C) O(log n) tim	ie (D) O(n log n) time	
5. The best data structure to check whether an arithmetic exp	oression h	nas	5. The best da	ata structure to	check whether a	an arithmetic ex	pression	ı has
balanced parentheses is a	[]	balanced pare	entheses is a			[]
(A) queue (B) stack (C) tree (D) list			(A) queue	(B) stack	(C) tree	(D) list		
6. On which principle does stack work?	[]	6. On which p	rinciple does st	tack work?		[]
(A) FILO (B) FIFO (C) LILO (D) Both a air	nd c abov	e	(A) FILO	(B) FIFO	(C) LILO	(D) Both a a	nd c abo	ove
7. The dummy header in linked list contain	[]	7. The dumm	y header in link	ed list contain		[]
(A) first record of the actual data			(A) first recor	d of the actual	data			
(B) last record of the actual data				d of the actual o				
(C) pointer to the last record of the actual data					of the actual da	ta		
(D) middle record of the actual data	(D) middle record of the actual data 8. In the worst case, the number of comparisons needed to search a singly							
8. In the worst case, the number of comparisons needed to se	earch a sii	ngly -			•	ons needed to s	search a	singly
linked list of length n for a given element is	[]		ength n for a gi			[]
(A) $\log_2 n$ (B) $n/2$ (C) $\log_2 n - 1$ (D) n			(A) $\log_2 n$	(B) n/2	(C) $\log_2 n - 1$	•		
9. The process of accessing data stored in a serial access mem	nory is sim	nilar to	9. The proces	s of accessing d	lata stored in a s	erial access me	mory is s	imilar to
manipulating data on a	[]	manipulating	data on a			[]
(A) heap (B) queue(C) stack (D) binary tree			(A) heap (B) q	queue(C) stack (D) binary tree			
10. Which data structure is used for implementing recursion?	[]	10. Which da	ta structure is u	ised for impleme	nting recursion	? []
(A) Queue. (B) Stack. (C) Arrays (D) List			(A) Queue.	(B) Stack.	(C) Arrays	(D) List		

11. Postfix notation is also	known as	[]		11. Postfix notation is also known	wn as		[]
(A) polish notation	(B) reverse polish notation			(A) polish notation	(B) reverse polis	sh notation		
(C) post notation	(D) post-operator notation			(C) post notation	(D) post-operat	or notation		
12. The deque in which inse	ertion is done at one end and deletior	from bo	oth	12. The deque in which insertion	on is done at one	end and deletion	ı from	both
ends:		[]		ends:			[]
(A) input-restricted deque	(B) output-restricted dec	que		(A) input-restricted deque	(B) outp	out-restricted dec	լue	
(C) input-output restricted	deque (D) Any of the above			(C) input-output restricted deq	ue (D) Any	of the above		
13. The estimated amount	of time required in executing an algor	rithm is		13. The estimated amount of t	ime required in e	xecuting an algor	ithm i	is
referred to as of the	algorithm.	[]		referred to as of the algo	orithm.		[]
(A) time complexity	(B) space complexity			(A) time complexity	(B) spac	ce complexity		
(C) time and space complex	(D) none of the above			(C) time and space complexity	(D) non	e of the above		
14. The main measures for	the efficiency of an algorithm are	[]		14. The main measures for the	efficiency of an a	lgorithm are	[]
(A) processor and memory	(B) complexity and capa	city		(A) processor and memory	(B) com	plexity and capac	city	
(C) time and space	(D) data and space			(C) time and space	(D) data	and space		
15. The functions used for o	dynamic memory allocation are	[]		15. The functions used for dyna	amic memory allo	cation are	[]
(A) delete and free (B)	free and realloc			(A) delete and free (B) free	e and realloc			
(C) malloc and free (D)	malloc and calloc			(C) malloc and free (D) ma	illoc and calloc			
16. A node in a double linke	ed list comprises of	[]		16. A node in a double linked li	ist comprises of		[]
(A) information field	(B) information field and next po	inter		(A) information field	(B) information	field and next po	inter	
(C) information field, next	(D) information field, next pointed	er, previo	ous	(C) information field, next	(D) information	field, next pointe	er, pre	evious
pointer & previous pointer	pointer and thread field			pointer & previous pointer	pointer and	thread field		
17. The worst case occurs in	n linear search algorithm when:			17. The worst case occurs in lin	near search algori	thm when:		
(A) item is in the middle of array	the (B) item is not in the arra	ay		(A) item is in the middle of the array	(B) item	is not in the arra	ЭУ	
(C) item is the last element	in the (D) item is the last elem	ent in th	ie	(C) item is the last element in t	he (D) iter	n is the last elem	ent in	the
array	array or not in the array	y at-all		array	array c	or not in the array	/ at-all	l
18. On which principle does	queue work?	[]		18. On which principle does qu	ueue work?		[]
(A) FILO (B) FIFO	(C) LILO (D) Both a and o	above		(A) FILO (B) FIFO	(C) LILO	(D) Both a and o	: abov	е
19. The postfix expression:	5 6 2 + * 12 4 /- when evaluated gives	s the follo	owing	19. The postfix expression: 5 6	2 + * 12 4 /- whe	n evaluated gives	the fo	ollowing
result:		[]		result:			[]
(A) 37 (B) -37	(C) 40 (D) 3			(A) 37 (B) -37 (C)	40 (D) 3			
20.Which out of these is a r	ion-linear data-structure	[]		20. Which out of these is a non-	-linear data-struc	ture	[]
(A) arrays (B)linked-lis	sts (C) queues (D) tree			(A) arrays (B)linked-lists	(C) queues	(D) tree		