AMCAT COMPUTER PROGRAMMING TEST 5 Report !

197 users have taken the test till now.

27/30

Highest Marks

0.0/30

Lowest Marks

10.36/30

Avg. Marks

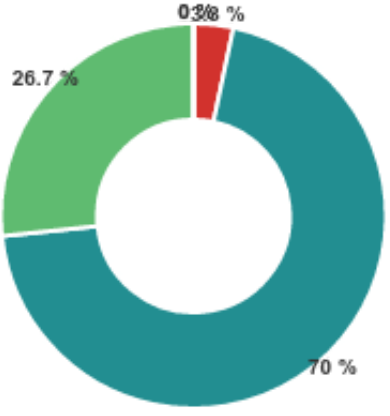
10 m 46.76 s

Avg. Time Spent

43.18%

Avg. Accuracy

Question Difficulty



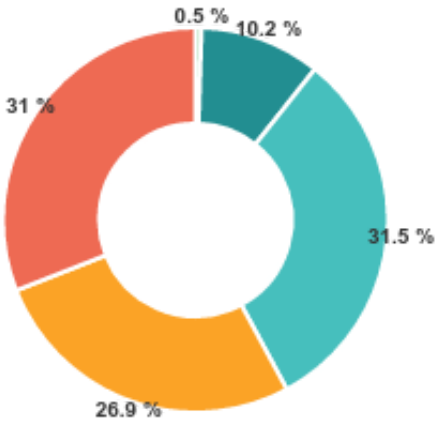
Very Tough : 1

Tough : 21

Average : 8

The difficulty level of a question is calculated dynamically based on the performance of the students. Ex: The very tough questions are the ones that less than 20% of the students solved correctly.

Student Performance



Excellent : 1

Good : 20

Average : 62

Poor : 53

Very Poor : 61

Student performance is calculated based on the marks that students obtained.
> 90 : Excellent
>70 to <= 90 : Good
> 40 to <= 70 : Average
> 20 to <= 40 : Poor
0-20 : Very Poor

✔ Score Comparision

Topper's Score	27
Average Score	10.36

Accuracy Comparision

Topper's Accuracy	90 %
Average Accuracy	43.18 %

Time Comparision

Topper's Time	9 m 20 s
Average Time	10 m 46.76 s

Overall **Computer Programming**

Top Performers

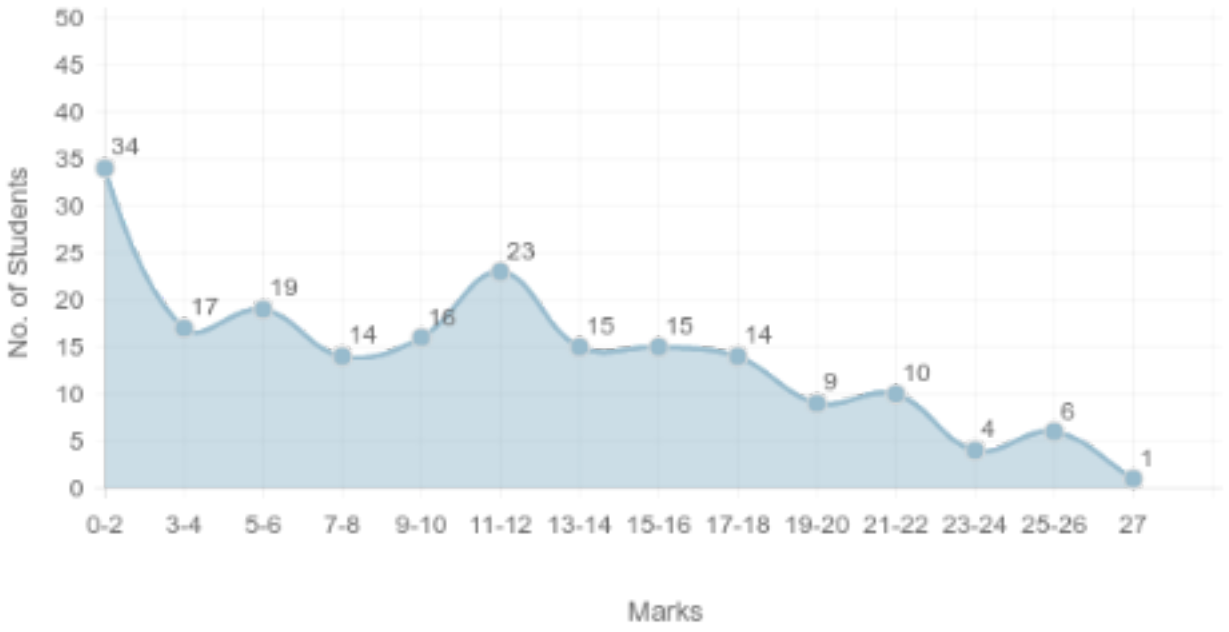
HIMANSHU ISHWAR (/rbihemu/)
Rank : 1 Score : 27/30

Avtar singh (/avtarsingh5abi/)
Rank : 2 Score : 26/30

Avdhesh Singh Rana (/kranasingh123/)
Rank : 3 Score : 26/30

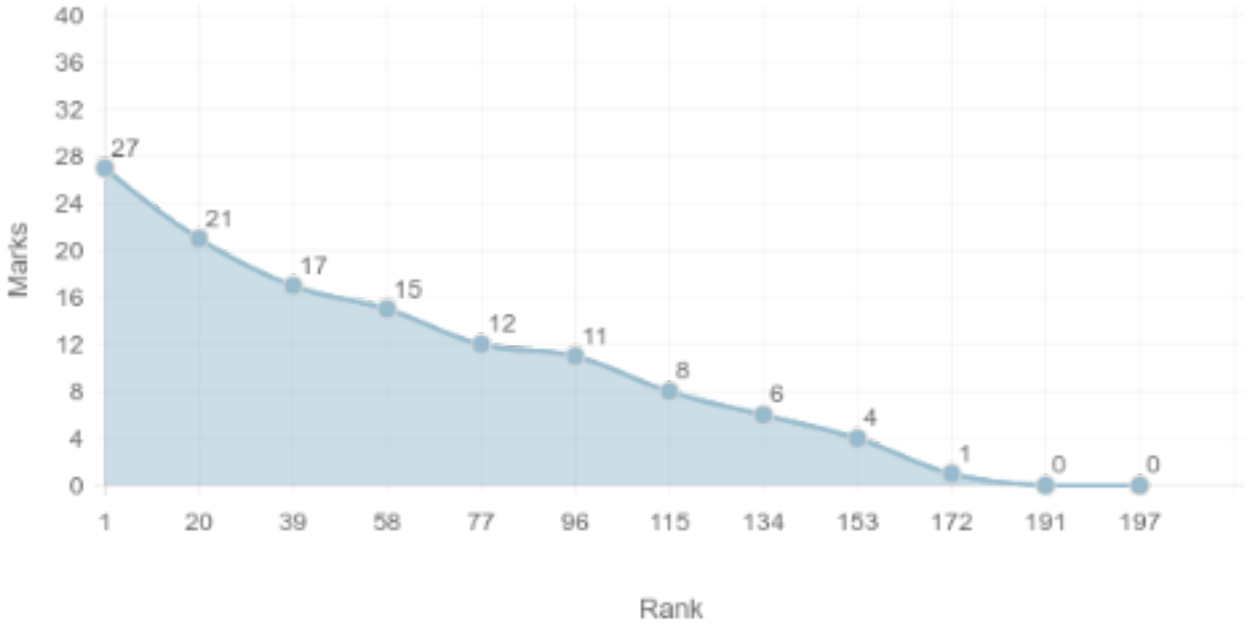
Poonam kumari (/poonamkumari221994apr/)
Rank : 4 Score : 25/30

Marks vs No. of Students



This graph shows where the majority of the students stand. The Peak of the graph signifies the marks that most of the test takers obtained. The arrow indicates where you stand.
Note : Your goal is to be as far to the right as possible, that is where all the toppers are.

Rank v/s Marks



This graph shows the marks distribution among the test takers. The leftmost point on the graph shows the topper's marks while the rightmost point belongs to the person who stood last. The arrow indicates where you stand.
Note: Your goal is to be as far to the left as possible.

Student Wise Report | **Question Wise Report**

All | Tricky Qs | Very Tough Qs | Tough Qs | Average Qs | Easy Qs | Very Easy Qs

Question 1 of 30

The time complexity of linear search algorithm over an array of n elements is

A. O (log2 n)

✔ **B.** O (n)

C. O (n log2 n)

D. O (n2)

Explanation :

No explanation provided

Question Analytics

152 USERS ()	83 USERS ()	69 USERS ()	54.61 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

11.33 SECS	1.2 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 2 of 30

Rajesh implements queue as a singly-linked linked list. The queue has n elements. The time complexity to ADD a new element to the queue:

- **A.** O (1)
- **B.** O (log2 n)
- **C.** O (n)
- **D.** O (n log2 n)

Explanation :

No explanation provided

Question Analytics

142 USERS ()	47 USERS ()	95 USERS ()	33.1 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

16.21 SECS	2 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 3 of 30

The time required to insert an element in a stack with linked list implementation is

- **A.** O (1)
- **B.** O (log2 n)
- **C.** O (n)
- **D.** O (n log2 n)

Explanation :

No explanation provided

Question Analytics

144 USERS ()	50 USERS ()	94 USERS ()	34.72 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

12.96 SECS	1.3 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 4 of 30

In the following sorting procedures, which one will be the slowest for any given array?

A. Quick sort

B. Heap sort

C. Merge Sort

✔ **D.** Bubble sort

Explanation :

No explanation provided

Question Analytics

146 USERS ()	77 USERS ()	69 USERS ()	52.74 %
ATTEMPTED	✔ SOLVED CORRECTLY	✖ SOLVED INCORRECTLY	ACCURACY

13.07 SECS	1.3 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 5 of 30

Pankaj stores n data elements in a hash table. He is able to get the best efficiency achievable by a hash table. What is the time complexity of accessing any element from this hash table?

✔ **A.** O(1)

B. O(n2)

C. O(log n)

D. O(n)

Explanation :

No explanation provided

Question Analytics

143 USERS ()	50 USERS ()	93 USERS ()	34.97 %
ATTEMPTED	✔ SOLVED CORRECTLY	✖ SOLVED INCORRECTLY	ACCURACY

15.6 SECS	1.5 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 6 of 30

Every element of a data structure has an address and a key associated with it. A search mechanism deals with two or more values assigned to the same address by using the key. What is this search

mechanism?

- **A.** Linear Search
- **B.** Binary search
- ✔ **C.** Hash Coded Search
- **D.** None of these

Explanation :

No explanation provided

Question Analytics

139 USERS ()	92 USERS ()	47 USERS ()	66.19 %
ATTEMPTED	✔ SOLVED CORRECTLY	✖ SOLVED INCORRECTLY	ACCURACY

19.98 SECS	1.7 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 7 of 30

The order of magnitude of the worst case performance of a hash coded search (over N elements) is

- ✔ **A.** N
- **B.** N log2 N
- **C.** log2 N
- **D.** not dependent upon N

Explanation :

No explanation provided

Question Analytics

134 USERS ()	37 USERS ()	97 USERS ()	27.61 %
ATTEMPTED	✔ SOLVED CORRECTLY	✖ SOLVED INCORRECTLY	ACCURACY

13.36 SECS	1.6 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 8 of 30

A sorting algorithm traverses through a list, comparing adjacent elements and switching them under certain conditions. What is this sorting algorithm called?

A. insertion sort

B. heap sort

C. quick sort

✔ **D.** bubble sort

Explanation :

No explanation provided

Question Analytics

146 USERS ()	79 USERS ()	67 USERS ()	54.11 %
ATTEMPTED	✔ SOLVED CORRECTLY	✖ SOLVED INCORRECTLY	⊙ ACCURACY

19.28 SECS	1.7 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 9 of 30

A sorting algorithm iteratively traverses through a list to exchange the first element with any element less than it. It then repeats with a new first element. What is this sorting algorithm called?

A. insertion sort

✔ **B.** selection sort

C. heap sort

D. quick sort

Explanation :

No explanation provided

Question Analytics

141 USERS ()	65 USERS ()	76 USERS ()	46.1 %
ATTEMPTED	✔ SOLVED CORRECTLY	✖ SOLVED INCORRECTLY	⊙ ACCURACY

26.3 SECS	1.4 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 10 of 30

A sort which uses the binary tree concept such that any number in the tree is larger than all the numbers in the subtree below it is called

A. selection sort

B. insertion sort

C. heap sort

D. quick sort

Explanation :

No explanation provided

Question Analytics

143 USERS ()	96 USERS ()	47 USERS ()	67.13 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

26.96 SECS	1.2 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 11 of 30

The average time required to perform a successful sequential search for an element in an array A(1 : n) is given by

A. (n+1) / 2

B. log2n

C. n(n+1) / 2

D. n2

Explanation :

No explanation provided

Question Analytics

146 USERS ()	48 USERS ()	98 USERS ()	32.88 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

19.27 SECS	1.6 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 12 of 30

How many comparisons are needed to sort an array of length 5 if a straight selection sort is used and array is already in the opposite order?

A. 1

✔ **B.** 10

C. 50

D. 20

Explanation :

No explanation provided

Question Analytics

139 USERS ()	51 USERS ()	88 USERS ()	36.69 %
ATTEMPTED	✔ SOLVED CORRECTLY	✖ SOLVED INCORRECTLY	ACCURACY

28.74 SECS	1.7 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 13 of 30

Queues serve a major role in

A. simulation of recursion

B. simulation of arbitrary linked list

✔ **C.** simulation of limited resource allocation

D. expression evaluation

Explanation :

No explanation provided

Question Analytics

140 USERS ()	52 USERS ()	88 USERS ()	37.14 %
ATTEMPTED	✔ SOLVED CORRECTLY	✖ SOLVED INCORRECTLY	ACCURACY

15.28 SECS	1.4 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 14 of 30

The average search time of hashing with linear probing will be less if the load factor

✔ **A.** is far less than one

B. equals one

C. is far greater than one

D. none of these

Explanation :

No explanation provided

Question Analytics

134 USERS ()	53 USERS ()	81 USERS ()	39.55 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

17.64 SECS	1.7 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 15 of 30

Number of vertices of odd degree in a graph is

✔ **A.** is always even

B. always odd

C. either even or odd

D. always zero

Explanation :

No explanation provided

Question Analytics

143 USERS ()	69 USERS ()	74 USERS ()	48.25 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

20.01 SECS	1.6 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 16 of 30

The algorithm design technique used in the quick sort algorithm is

A. Dynamic programming

B. Back tracking

✔ **C.** Divide and conquer

D. Greedy Search

Explanation :

No explanation provided

Question Analytics

151 USERS ()	90 USERS ()	61 USERS ()	59.6 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

13.8 SECS	1.6 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 17 of 30

Linked lists are not suitable for

A. Insertion sort

✔ **B.** Binary search

C. Queue implementation

D. None of these

Explanation :

No explanation provided

Question Analytics

150 USERS ()	70 USERS ()	80 USERS ()	46.67 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

13.65 SECS	2.6 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 18 of 30

A connected graph is the one which

✔ **A.** Cannot be partitioned without removing an edge

B. Can be partitioned without removing an edge

C. does not contain a cycle

D. Has even number of vertices

Explanation :

No explanation provided

Question Analytics

147 USERS ()	72 USERS ()	75 USERS ()	48.98 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

22.76 SECS	1.4 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 19 of 30

Stack is useful for implementing

- **A.** radix search
- **B.** breadth first search
- ✔ **C.** recursion
- **D.** none of these

Explanation :

No explanation provided

Question Analytics

150 USERS ()	73 USERS ()	77 USERS ()	48.67 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

11.69 SECS	1.4 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 20 of 30

Which of the following is useful in traversing a given graph by breadth first search?

- **A.** stack
- **B.** set
- **C.** list
- ✔ **D.** queue

Explanation :

No explanation provided

Question Analytics

148 USERS ()	69 USERS ()	79 USERS ()	46.62 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

15.53 SECS	1.4 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 21 of 30

Which of the following is useful in implementing quick sort?

- **A.** stack
- **B.** set
- **C.** list
- **D.** queue

Explanation :

No explanation provided

Question Analytics

152 USERS ()	43 USERS ()	109 USERS ()	28.29 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

18.12 SECS	1.6 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 22 of 30

Which of the following abstract data types can be used to represent a many-to-many relation?

- **A.** Tree
- **B.** Stack
- **C.** Graph
- **D.** Queue

Explanation :

No explanation provided

Question Analytics

144 USERS ()	88 USERS ()	56 USERS ()	61.11 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

13.62 SECS	1.2 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 23 of 30

Two lists, A and B are implemented as singly linked link-lists. The address of the first and last node are stored in variables firstA and lastA for list A and firstB and lastB for list B. Given the address of a node is given in the variable node, the element stored in the node can be accessed by the statement node->data and the address to the next node can be accessed by node->next. Pankaj wants to append list B at end of list A. Which of the following statements should he use?

A. lastB -> next = firstA

B. lastA = firstB

✔ **C.** lastA->next = firstB

D. lastB = firstA

Explanation :

No explanation provided

Question Analytics

130 USERS ()	64 USERS ()	66 USERS ()	49.23 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

40.34 SECS	2 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 24 of 30

Which of the following sorting algorithms yield approximately the same worst-case and average-case running time behaviour in O (n log n)?

A. Bubble sort and Selection sort

✔ **B.** Heap sort and Merge sort

C. Quick sort and Radix sort

D. Tree sort and Median-of-3 Quick sort

Explanation :

No explanation provided

Question Analytics

139 USERS ()	62 USERS ()	77 USERS ()	44.6 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

17.45 SECS	2.8 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 25 of 30

A complete binary tree with 5 levels has how many nodes? (Root is Level 1)

A. 15

B. 25

C. 63

✔ **D.** 31

Explanation :

No explanation provided

Question Analytics

155 USERS ()	88 USERS ()	67 USERS ()	56.77 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

30.14 SECS	1.6 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 26 of 30

The maximum number of nodes on level I of a binary tree is which of the following? (Root is Level 1)

✔ **A.** 2^(l-1)

B. 3^(l-1)

C. 2^l

D. 2^(l - 1)

Explanation :

No explanation provided

Question Analytics

148 USERS ()	53 USERS ()	95 USERS ()	35.81 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

23.88 SECS	1.9 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 27 of 30

Consider an array on which bubble sort is used. The bubble sort would compare the element A[x] to which of the following elements in a single iteration.

- **A.** A [x+1]
- **B.** A [x+2]
- **C.** A [x+2x]
- **D.** All of these.

Explanation :

No explanation provided

Question Analytics

140 USERS ()	78 USERS ()	62 USERS ()	55.71 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

17.17 SECS	1.3 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 28 of 30

In an implementation of a linked list, each node contains data and address. Which of the following could the address field possibly contain?

- **A.** Address of next node in sequence
- **B.** It's own address
- **C.** Address of last node
- **D.** Address of first node

Explanation :

No explanation provided

Question Analytics

142 USERS ()	99 USERS ()	43 USERS ()	69.72 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

21.45 SECS	1.4 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 29 of 30

Surbhi wants to implement a particular data structure using a static array. She uses the concept of circular list to implement the data structure, because this allows her to efficiently use all fields of the array. Which data structure is Surbhi implementing?

- **A.** a stack
- ✔ **B.** a queue
- **C.** Binary Tree
- **D.** None of these

Explanation :

No explanation provided

Question Analytics

141 USERS ()	73 USERS ()	68 USERS ()	51.77 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

23.6 SECS	2.9 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME

Question 30 of 30

Which of the following is a bad implementation for a queue?

- **A.** Circular List
- **B.** Doubly linked list
- **C.** Singly linked List
- ✔ **D.** Linear Static Array

Explanation :

No explanation provided

Question Analytics

149 USERS ()	70 USERS ()	79 USERS ()	46.98 %
ATTEMPTED	SOLVED CORRECTLY	SOLVED INCORRECTLY	ACCURACY

14.31 SECS	1.6 SECS
AVG. SOLVING TIME	FASTEST SOLVING TIME