

RIZ MUGHAL

QUIZ MASTER

Grand Quiz(CS502)

100% correct solution.

For more information you can visit my channel and for any type of help related to CS619 you can contact me.



YOUTUBE CHANNEL:

<https://www.youtube.com/channel/UCINsFwDiB62SValCcPDZbRQ/playlists>

FACEBOOK GROUP:

<https://www.facebook.com/groups/923887914750307>

Question # 1 of 30 (Start time: 10:21:38 AM, 04 January 2021)

Total Marks: 1

If we have an equation $8n^2+7f*n+ 5f+6$ then n is large, _____ term will be much larger than the n term and will dominate the running time.

Select the correct option

- | | | |
|----------------------------------|-----------|----|
| <input type="radio"/> | $f(g(n))$ | // |
| <input type="radio"/> | $g(n)^2$ | // |
| <input checked="" type="radio"/> | n^2 | // |
| <input type="radio"/> | $f(n)$ | // |

RIZ MUGHAL

Question # 1 of 30 (Start time: 10:21:38 AM, 04 January 2021)

Total Marks: 1

If we have an equation $8n^2+7f*n+ 5f+6$ then n is large, _____ term will be much larger than the n term and will dominate the running time.

Select the correct option

- | | | |
|----------------------------------|-----------|----|
| <input type="radio"/> | $f(g(n))$ | // |
| <input type="radio"/> | $g(n)^2$ | // |
| <input checked="" type="radio"/> | n^2 | // |
| <input type="radio"/> | $f(n)$ | // |

Question # 2 of 30 (Start time: 10:22:04 AM, 04 January 2021)

Pseudo code of algorithms are to be read by _____.

Select the correct option

- | | |
|----------------------------------|----------|
| <input checked="" type="radio"/> | People |
| <input type="radio"/> | RAM |
| <input type="radio"/> | Computer |
| <input type="radio"/> | Compiler |

RIZ MUGHAL

Question # 3 of 30 (Start time: 10:22:23 AM, 04 January 2021)

In generating Fibonacci Sequence, we can avoid unnecessary repetitions by _____ process.

Select the correct option

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | Tokenization |
| <input checked="" type="radio"/> | Memoization |
| <input type="radio"/> | Randomization |
| <input type="radio"/> | Memorization |

Question # 4 of 30 (Start time: 10:22:40 AM, 04 January 2021)

For _____ values of n , any algorithm is fast enough.

Select the correct option

<input checked="" type="radio"/>	Small
<input type="radio"/>	Medium
<input type="radio"/>	Large
<input type="radio"/>	Infinity

Question # 5 of 30 (Start time: 10:22:56 AM, 04 January 2021)

Identify a TRUE statement about Knapsack.

Select the correct option

- The Knapsack problem does not belong to the domain of optimization problems.
- The Knapsack problem belongs to the domain of optimization problems.
- The Knapsack problem can not be solved by using dynamic programming.
- The Knapsack problem is optimally solved by using brute force algorithm.

RIZ MUGHAL

CS502:Grand Quiz

Question # 6 of 30 (Start time: 10:23:16 AM, 04 January 2021)

What is the average running time of a quick sort algorithm?

Select the correct option

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | $O(n^2)$ |
| <input type="radio"/> | $O(n)$ |
| <input checked="" type="radio"/> | $O(n \log n)$ |
| <input type="radio"/> | $O(\log n)$ |

RIZ MUGHAL

CS502:Grand Quiz

Question # 7 of 30 (Start time: 10:23:35 AM, 04 January 20:)

If input "n" is odd, then median will be _____

Select the correct option

- | | |
|----------------------------------|-----------|
| <input checked="" type="radio"/> | $(n+1)/2$ |
| <input type="radio"/> | $n/2$ |
| <input type="radio"/> | $(n-1)/2$ |
| <input type="radio"/> | $n + 2$ |
- RIZ MUGHAL

Question # 8 of 30 (Start time: 10:23:50 AM, 04 January 2021)

_____ provides us more accurate result, when input values are not closer with each other.

Select the correct option

<input type="radio"/>	Average
<input checked="" type="radio"/>	Median
<input type="radio"/>	Mode
<input type="radio"/>	Mean

RIZ MUGHAL

CS502:Grand Quiz

Question # 9 of 30 (Start time: 10:24:05 AM, 04 January 2021)

The worst case running time of quick sort algorithm _____.

Select the correct option

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | Cannot be quadratic |
| <input checked="" type="radio"/> | Is quadratic |
| <input type="radio"/> | Is always Exponential |
| <input type="radio"/> | Is linear |

CS502:Grand Quiz

Question # 10 of 30 (Start time: 10:24:22 AM, 04 January 2021)

Radix sort is a _____ integer sorting algorithm.

Select the correct option

<input type="radio"/>	Comparative
<input checked="" type="radio"/>	Non-comparative
<input type="radio"/>	In-Place
<input type="radio"/>	Unstable

RIZ MUGHAL

Question # 11 of 30 (Start time: 10:24:36 AM, 04 January 2021)

_____ overcomes the limitations of _____ by working as per positional notations of numbers.

Select the correct option

- | | |
|----------------------------------|---------------------------|
| <input type="radio"/> | Bubble sort, Radix sort |
| <input type="radio"/> | Counting sort, Radix sort |
| <input type="radio"/> | Radix sort, Bubble sort, |
| <input checked="" type="radio"/> | Radix sort, Counting sort |

RIZ MUGHAL

Question # 12 of 30 (Start time: 10:24:52 AM, 04 January 2021)

In merge sort algorithm, to merge two lists of size $n/2$ to a list of size n , takes _____ time.

Select the correct option

- | | |
|----------------------------------|-------------------|
| <input checked="" type="radio"/> | Theta (n) |
| <input type="radio"/> | Theta $\log(n)$ |
| <input type="radio"/> | Theta $\log^2(n)$ |
| <input type="radio"/> | Theta $n\log(n)$ |

RIZ MUGHAL

Question # 13 of 30 (Start time: 10:25:06 AM, 04 January 2021)

If the time complexity of an algorithm is $O(n)$, then it is called _____ time complexity.

Select the correct option

<input checked="" type="radio"/>	Linear
<input type="radio"/>	Constant
<input type="radio"/>	Average
<input type="radio"/>	Exponential

Question # 14 of 30 (Start time: 10:25:21 AM, 04 January 2021)

The asymptotic growth of $n(n+1)/2$ is:

Select the correct option

<input checked="" type="radio"/>	$O(n^2)$
<input type="radio"/>	$O(n)$
<input type="radio"/>	$O(n+2)$
<input type="radio"/>	$O(n \log n)$

RIZ MUGHAL

Question # 15 of 30 (Start time: 10:25:37 AM, 04 January 2021)

We can make _____ recursive calls in Fibonacci Sequence.

Select the correct option

- | | |
|----------------------------------|----------|
| <input checked="" type="radio"/> | Infinite |
| <input type="radio"/> | Finite |
| <input type="radio"/> | Only one |
| <input type="radio"/> | Zero |

RIZ MUGHAL

Question # 16 of 30 (Start time: 10:25:52 AM, 04 January 2021)

Brute-force algorithm for 2D-Maxima is operated by comparing _____ pairs of points.

Select the correct option

<input type="radio"/>	Two
<input type="radio"/>	Some
<input type="radio"/>	Most
<input checked="" type="radio"/>	All

RIZ MUGHAL

CS502:Grand Quiz

Question # 17 of 30 (Start time: 10:26:08 AM, 04 January 2021)

For quick sort algorithm, partitioning takes theta _____.

Select the correct option

<input checked="" type="radio"/>	(n)
<input type="radio"/>	$\log(n)$
<input type="radio"/>	$n\log(n)$
<input type="radio"/>	$n^2\log(n)$

RIZ MUGHAL

Question # 18 of 30 (Start time: 10:26:24 AM, 04 January 2021)

In the following code the statement "cout<<i;" executes ----- times.
for (int i = 1; i<=n ;i++)
cout<<i;

Select the correct option

<input checked="" type="radio"/>	n times
<input type="radio"/>	n+5 times
<input type="radio"/>	Infinite times
<input type="radio"/>	Zero times

RIZ MUGHAL

Question # 19 of 30 (Start time: 10:26:42 AM, 04 January 2021)

1

While Sorting, the ordered domain means for any two input elements x and y _____ satisfies only.

Select the correct option

- | | |
|-------------------------------------|------------------|
| <input type="radio"/> | $x < y$ |
| <input type="radio"/> | $x > y$ |
| <input type="radio"/> | $x = y$ |
| <input checked="" type="checkbox"/> | All of the above |

Question # 20 of 30 (Start time: 10:27:00 AM, 04 January 2021)

Total Marks

In asymptotical analysis of $n^*(5 + 2) - 3$, as n becomes large, the dominant (fastest growing) term is some constant times _____

Select the correct option

- | | |
|----------------------------------|--------|
| <input type="radio"/> | n_1 |
| <input checked="" type="radio"/> | n |
| <input type="radio"/> | $n+1$ |
| <input type="radio"/> | $n*n$ |

RIZ MUGHAL

Question # 21 of 30 (Start time: 10:27:15 AM, 04 January 2021)

The main purpose of mathematical analysis is measuring the _____ required by the algorithm.

Select the correct option

- | | |
|----------------------------------|---------------------------|
| <input type="radio"/> | Space |
| <input type="radio"/> | Execution time |
| <input type="radio"/> | Inputs & outputs |
| <input checked="" type="radio"/> | Execution time and memory |

RIZ MUGHAL

Question # 22 of 30 (Start time: 10:27:32 AM, 04 January 2021)

In plane sweep approach of solving geometric problems, a _____ is swept across the plane.

Select the correct option

<input checked="" type="radio"/>	Line
<input type="radio"/>	Plane
<input type="radio"/>	Cube
<input type="radio"/>	Box

Question # 23 of 30 (Start time: 10:27:47 AM, 04 January 2021)

Total Marks: 1

If we associate (x, y) integers pair to cars where x is the speed of the car and y is the negation of the price. High y value for a car means a _____ car.

Select the correct option

<input type="radio"/>	Fast	//
<input type="radio"/>	Slow	//
<input type="radio"/>	Expensive	//
<input checked="" type="radio"/>	Cheap	//

CS502:Grand Quiz

Question # 24 of 30 (Start time: 10:28:03 AM, 04 January 2021)

Which of the following is calculated with Big Omega notation?

Select the correct option

- | | |
|----------------------------------|-----------------------------|
| <input type="radio"/> | Medium bounds |
| <input type="radio"/> | Upper bounds |
| <input checked="" type="radio"/> | Lower bounds |
| <input type="radio"/> | Both upper and lower bounds |

RIZ MUGHAL

Question # 25 of 30 (Start time: 10:28:19 AM, 04 January 2021)

Total Marks: 1

_____ is not useful measure of central tendency of given input set especially when the distribution of values is highly skewed.

Select the correct option

<input type="radio"/>	Mean	//
<input type="radio"/>	Mode	//
<input type="radio"/>	Average	//
<input checked="" type="radio"/>	Median	//

RIZ MUGHAL

Question # 26 of 30 (Start time: 10:28:36 AM, 04 January 2021)

Dynamic Programming approach is usually useful in solving _____ problems.

Select the correct option

- | | |
|----------------------------------|--------------|
| <input type="radio"/> | normal |
| <input checked="" type="radio"/> | optimization |
| <input type="radio"/> | array |
| <input type="radio"/> | loop |

RIZ MUGHAL

Question # 27 of 30 (Start time: 10:28:52 AM, 04 January 2021)

One of the limitation in 0/1 knapsack is that an item can either be _____ in the bag or not.

Select the correct option

<input type="radio"/>	Use
<input checked="" type="radio"/>	Put
<input type="radio"/>	Move
<input type="radio"/>	Store

RIZ MUGHAL

Question # 28 of 30 (Start time: 10:29:06 AM, 04 January 2021)

In Heap Sort algorithm, the total running time for Heapify procedure is _____.

Select the correct option

- | | |
|----------------------------------|---------------------------|
| <input type="radio"/> | Theta ($\log n$) |
| <input checked="" type="radio"/> | Big-oh($\log n$) |
| <input type="radio"/> | Omega ($\log n$) |
| <input type="radio"/> | $O(1)$ i.e. Constant time |

RIZ MUGHAL

Question # 29 of 30 (Start time: 10:29:22 AM, 04 January 2021)

An algorithm is said to be correct if for every _____ instance, it halts with the correct _____.

Select the correct option

<input checked="" type="radio"/>	Input , Output
<input type="radio"/>	Design , Analysis
<input type="radio"/>	Design , Analysis
<input type="radio"/>	Key , Analysis

RIZ MUGHAL

Question # 30 of 30 (Start time: 10:29:39 AM, 04 January 2021)

In Heap Sort algorithm, the maximum levels an element can move upward is _____.

Select the correct option

- | | |
|----------------------------------|---------------------------|
| <input checked="" type="radio"/> | Theta ($\log n$) |
| <input type="radio"/> | Big-oh($\log n$) |
| <input type="radio"/> | Omega ($\log n$) |
| <input type="radio"/> | $O(1)$ i.e. Constant time |

RIZ MUGHAL