View Instructions | Test Name- K21LECA2CSE408 | Time Remaining- 15:13

Laveesh Tomar , 12202898

Attempt Status

Answered 23 | Flagged 0 | Pending 7

Questions

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29	30		

Q: 22 of 30

Given a pattern of length- 5 and text of length 21, find the appropriate value of h in Rabin karp algorithm
Pattern: 2 6 7 3 9
modulus: 71
Index: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Text: 2 3 5 9 0 2 3 1 4 1 5 2 6 7 3 9 9 2 1 3 9

Options :

- (•) 60
- ( ) 40
- ( ) 39
- ( ) None of these

Clear Response

Previous | Flag | Next

22
Tap to see search results

End Test

Laveesh Tomar , 12202898

Attempt Status

Answered 23 | Flagged 0 | Pending 7

Questions

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13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 23 of 30

Given a pattern of length- 5 and text of length 11, How many spurious hits by using Rabin karp algorithm
Pattern: 3 1 4 1 5
modulus: 13
Index: 0 1 2 3 4 5 6 7 8 9 10
Text: 3 1 4 1 5 2 6 7 3 9 9

Options :

- (•) 0
- ( ) 1
- ( ) 2
- ( ) 3

Clear Response

View Instructions | Test Name- K21LECA2CSE408 | Time Remaining- 15:20

Laveesh Tomar , 12202898

Attempt Status

Answered 23 | Flagged 0 | Pending 7

Questions

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17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 24 of 30

Find the value of Prefix function using KMP algorithm for the pattern AABAACAABAA

Options :

- 21
- 23
- 29
- 27

Clear Response

Previous | Flag | Next

24
Tap to see search results

End Test

Laveesh Tomar , 12202898

Attempt Status

Answered 22 | Flagged 0 | Pending 8

Questions

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13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 25 of 30

Find the value of Prefix function using KMP algorithm for the pattern AAABAAA

Options :

- (●) 0, 1, 2, 0, 1, 2, 3
- ( ) 0, 1, 0, 1, 1, 2, 3
- ( ) 0, 1, 1, 0, 1, 1, 3
- ( ) 0, 1, 0, 1, 2, 0, 1

Clear Response

Previous | Flag | Next | End Test

Laveesh Tomar , 12202898

Attempt Status

Answered 23 | Flagged 0 | Pending 7

Questions

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05	06	07	08
09	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 26 of 30

What is the complexity of Closest-Pair Brute-Force Algorithm

Options :

- Θ(n^2)
- Θ(n^3)
- Θ(nlogn)
- Θ(n^2logn)

Clear Response

View Instructions | Test Name- K21LECA2CSE408 | Time Remaining- 15:29

Laveesh Tomar , 12202898

Attempt Status

Answered 23 | Flagged 0 | Pending 7

Questions

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05	06	07	08
09	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 27 of 30

What is the complexity of convex hull Brute-Force Algorithm

Options :

- Θ(n^2)
- Θ(n^3)
- Θ(nlogn)
- Θ(n^2logn)

Clear Response

Flag | Next | End Test

Laveesh Tomar , 12202898

Attempt Status

Answered 23 | Flagged 0 | Pending 7

Questions

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05	06	07	08
09	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 28 of 30

How many potential solutions possible in Traveling Salesman Problem using Exhaustive Search

Options :

- (●) Θ(n!)
- ( ) Θ(n-1!)
- ( ) Θ(2^n)
- ( ) Θ(n^n)

Clear Response

View Instructions | Test Name- K21LECA2CSE408 | Time Remaining- 15:36

Laveesh Tomar , 12202898

Attempt Status

Answered 23 | Flagged 0 | Pending 7

Questions

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05	06	07	08
09	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 29 of 30

How many potential solutions possible in Knapsack Problem using Exhaustive Search

Options :

- Θ(n^3)
- Θ(n^2)
- Θ(2^n)
- Θ(n-1!)

Clear Response

Previous | Flag | Next | End Test

Laveesh Tomar , 12202898

Attempt Status

Answered 23 | Flagged 0 | Pending 7

Questions

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05	06	07	08
09	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 30 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?

Options :

- 1
- 5
- 10
- 25

Clear Response

Previous | Flag | Next | End Test

Laveesh Tomar , 12202898

Attempt Status

Answered 15 | Flagged 0 | Pending 15

Questions

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09	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 24 of 30

Find the value of Prefix function using KMP algorithm for the pattern AABAACAABAA

Options :

- 0, 1, 0, 1, 0, 1, 1, 2, 3, 4, 5
- 0, 1, 0, 1, 2, 1, 1, 2, 3, 4, 5
- 0, 1, 0, 1, 2, 0, 1, 2, 3, 4, 5
- 0, 1, 0, 1, 0, 0, 1, 2, 3, 0, 1

Clear Response

Previous | Flag | Next | End Test

Laveesh Tomar , 12202898

Attempt Status

Answered 13 | Flagged 0 | Pending 17

Questions

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05	06	07	08
09	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 22 of 30

Given a pattern of length- 5 and text of length 21, find the appropriate value of h in Rabin karp algorithm
Pattern: 2 6 7 3 9
modulus: 71
Index: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Text: 2 3 5 9 0 2 3 1 4 1 5 2 6 7 3 9 9 2 1 3 9

Options :

- 60
- 40
- 39
- None of these

Clear Response

View Instructions | Test Name- K21LECA2CSE408 | Time Remaining- 30:54

Laveesh Tomar , 12202898

Attempt Status

Answered 13 | Flagged 0 | Pending 17

Questions

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05	06	07	08
09	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 21 of 30

Given a pattern of length- 5 and text of length 21, find the appropriate value of modulus between 40 to 49 for Rabin karp algorithm

Pattern: 2 6 7 3 9

Index: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Text: 2 3 5 9 0 2 3 1 4 1 5 2 6 7 3 9 9 2 1 3 9

Options :

- 41
- 43
- 47
- 49

Clear Response

Previous | Flag | Next | End Test

Laveesh Tomar , 12202898

Attempt Status

Answered 11 | Flagged 0 | Pending 19

Questions

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05	06	07	08
09	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 19 of 30

Which of the following is not the required condition for binary search algorithm?

Options :

- There must be mechanism to delete or insert elements in the list
- there should be the direct access to the middle element in any sublist
- The list must be sorted
- None of these

Clear Response

Laveesh Tomar , 12202898

Attempt Status

Answered 9 | Flagged 0 | Pending 21

Questions

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05	06	07	08
09	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 17 of 30

What is the pre-processing time of Rabin and Karp Algorithm?

Options :

- Theta(m^2)
- Theta(m)
- Theta(mlogn)
- Theta(mn)

Clear Response

Laveesh Tomar , 12202898

Attempt Status

Answered 9 | Flagged 0 | Pending 21

Questions

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05	06	07	08
09	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 16 of 30

A machine needs a minimum of 100 sec to sort 1000 names by quick sort. The minimum time needed to sort 100 names will be approximately

Options :

- 50.2 sec
- 6.7 sec
- 72.7 sec
- 11.2 sec

Clear Response

Laveesh Tomar , 12202898

Attempt Status

Answered 9 | Flagged 0 | Pending 21

Questions

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17	18	19	20
21	22	23	24
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29	30		

Q: 15 of 30

Quicksort is run on two inputs shown below to sort in ascending order taking the first element as pivot,

(i) 1, 2, 3,....., n
(ii) n, n-1, n-2,....., 2, 1
Let C1 and C2 be the number of comparisons made for the inputs (i) and (ii) respectively. Then

Options :

- (●) C1 < C2
- ( ) C1 > C2
- ( ) C1 = C2
- ( ) We cannot say anything for arbitrary n

Clear Response

Previous | Flag | Next | End Test

Laveesh Tomar , 12202898

Attempt Status

Answered 7 | Flagged 0 | Pending 23

Questions

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29	30		

Q: 14 of 30

Which one of the following is the recurrence equation for the worst case time complexity of the Quicksort algorithm for sorting n(≥ 2) numbers? In the recurrence equations given in the options below, c is a constant.

Options :

- T(n) = 2T (n/2) + cn
- T(n) = T(n – 1) + T(0) + cn
- T(n) = 2T (n – 2) + cn
- T(n) = T(n/2) + cn

Clear Response

Laveesh Tomar , 12202898

Attempt Status

Answered 6 | Flagged 0 | Pending 24

Questions

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13	14	15	16
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29	30		

Q: 13 of 30

Let P be a QuickSort Program to sort numbers in ascending order using the first element as pivot. Let t1 and t2 be the number of comparisons made by P for the inputs {1, 2, 3, 4, 5} and {4, 1, 5, 3, 2} respectively. Which one of the following holds?

Options :

- t1 = 5
- t1 < t2
- t1 > t2
- t1 = t2

Clear Response

Previous | Flag | Next | End Test

Laveesh Tomar , 12202898

Attempt Status

Answered 6 | Flagged 0 | Pending 24

Questions

01	02	03	04
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09	10	11	12
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Q: 12 of 30

Consider the Quicksort algorithm. Suppose there is a procedure for finding a pivot element that splits the list into two sub-lists each of which contains at least one-fifth of the elements. Let T(n) be the number of comparisons required to sort n elements. Then

Options :

- T(n) = 2T(n/5) + n
- T(n) = T(n/5) + T(4n/5) + n
- T(n) = 2T(4n/5) + n
- T(n) = 2T(n/2) + n

Clear Response

View Instructions | Test Name- K21LECA2CSE408 | Time Remaining- 39:15

Laveesh Tomar , 12202898

Attempt Status

Answered 5 | Flagged 0 | Pending 25

Questions

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29	30		

Q: 11 of 30

You have to sort 1 GB of data with only 100 MB of available main memory. Which sorting technique will be most appropriate?

Options :

- Heap sort
- Insertion sort
- Merge sort
- All of above

Clear Response

Previous | Flag | Next

11
Tap to see search results

End Test

View Instructions | Test Name- K21LECA2CSE408 | Time Remaining- 40:49

Laveesh Tomar , 12202898

Attempt Status

Answered	Flagged	Pending
5	0	25

Questions

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17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 10 of 30

The worst case complexity of merge sort is 30 sec if input size is 64.What is the size of the input if merge sort takes 6 minutes.

Options :

- 2048
- 1024
- 256
- 512

Clear Response

Previous | Flag | Next

10
Tap to see search results

End Test

Laveesh Tomar , 12202898

Attempt Status

Answered 5 | Flagged 0 | Pending 25

Questions

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17	18	19	20
21	22	23	24
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29	30		

Q: 09 of 30

What is the time complexity of recursive relation $T(n)= 3T(n/3) + \sqrt{n}$

Options :

- $\sqrt{n}$
- n
- logn
- nlogn

Clear Response

Previous | Flag | Next

09
Tap to see search results

End Test

View Instructions | Test Name- K21LECA2CSE408 | Time Remaining- 40:55

Laveesh Tomar , 12202898

Attempt Status

Answered 5 | Flagged 0 | Pending 25

Questions

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09	10	11	12
13	14	15	16
17	18	19	20
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25	26	27	28
29	30		

Q: 08 of 30

Recurrence relations which cannot be solved using the master method

Options :

- T(n)=T(n/2)+n^2
- T(n)=2T(n/2)+n
- T(n)=2nT(n/2)+n
- T(n)=T(n/2)+logn

Clear Response

Previous | Flag | Next | End Test

View Instructions | Test Name- K21LECA2CSE408 | Time Remaining- 40:59

Laveesh Tomar , 12202898

Attempt Status

Answered 5 | Flagged 0 | Pending 25

Questions

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29	30		

Q: 07 of 30

Recurrence relations which cannot be solved using the master method

Options :

- T(n)=2T(n/2)+n^2
- T(n)=2T(n/2)+2^n
- T(n)=2T(n/3)+n
- T(n)=T(n/2)+logn

Clear Response

Previous | Flag | Next

07

Tap to see search results

End Test

Laveesh Tomar , 12202898

Attempt Status

Answered 5 | Flagged 0 | Pending 25

Questions

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05	06	07	08
09	10	11	12
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29	30		

Q: 06 of 30

What is the time complexity of recursive relation T(n)= 8T(n/2) + cn^2

Options :

- Θ(n^2logn)
- Θ(n^2)
- Θ(n^3)
- Θ(nlogn)

Clear Response

Previous | Flag | Next | End Test

View Instructions | Test Name- K21LECA2CSE408 | Time Remaining- 41:06

Laveesh Tomar , 12202898

Attempt Status

Answered 5 | Flagged 0 | Pending 25

Questions

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13	14	15	16
17	18	19	20
21	22	23	24
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29	30		

Q: 05 of 30

What is the time complexity of recursive relation T(n)= T(n/2) + cn

Options :

- Θ(logn)
- Θ(n)
- Θ(nlogn)
- none of these

Clear Response

Previous | Flag | Next

05
Tap to see search results

End Test

View Instructions | Test Name- K21LECA2CSE408 | Time Remaining- 41:09

Laveesh Tomar , 12202898

Attempt Status

Answered 5 | Flagged 0 | Pending 25

Questions

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17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 04 of 30

What is the time complexity of following code

```
function Sum(int n){
    if n == 1 {
        return 1
    }
    return n + Sum(n-1)
}
```

Options :

- (•) Θ(n)
- ( ) Θ(n^2)
- ( ) Θ(nlogn)
- ( ) Θ(logn)

Clear Response

Previous | Flag | Next | End Test

Laveesh Tomar , 12202898

Attempt Status

Answered 5 | Flagged 0 | Pending 25

Questions

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05	06	07	08
09	10	11	12
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17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 03 of 30

What is the time complexity of recursive relation T(n) = 3T(n/2) + n

Options :

- n
- n^1.5
- n^2
- nlogn

Clear Response

View Instructions | Test Name- K21LECA2CSE408 | Time Remaining- 41:16

Laveesh Tomar , 12202898

Attempt Status

Answered 5 | Flagged 0 | Pending 25

Questions

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09	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 02 of 30

What is the time complexity of recursive relation T(n)=T(n/2)+n^2

Options :

- Θ(n^2)
- Θ(n^2 logn)
- Θ(nlogn)
- error

Clear Response

Previous | Flag | Next

03
Tap to see search results

End Test

View Instructions | Test Name- K21LECA2CSE408 | Time Remaining- 41:19

Laveesh Tomar , 12202898

Attempt Status

Answered 5 | Flagged 0 | Pending 25

Questions

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05	06	07	08
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13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 02 of 30

What is the time complexity of recursive relation T(n)=T(n/2)+n^2

Options :

- Θ(n^2)
- Θ(n^2 logn)
- Θ(nlogn)
- error

Clear Response

Previous | Flag | Next

02
Tap to see search results

End Test

Laveesh Tomar , 12202898

Attempt Status

Answered 5 | Flagged 0 | Pending 25

Questions

01	02	03	04
05	06	07	08
09	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 01 of 30

What is the time complexity of recursive relation T(n) = 3T(n/2) + n^2

Options :

- Θ(n^2)
- Θ(n^2 logn)
- o(n^2)
- Θ(nlogn)

Clear Response

Laveesh Tomar , 12202898

Attempt Status

Answered 5 | Flagged 0 | Pending 25

Questions

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05	06	07	08
09	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30		

Q: 26 of 30

What is the complexity of Closest-Pair Brute-Force Algorithm

Options :

- Θ(n^2)
- Θ(n^3)
- Θ(nlogn)
- Θ(n^2logn)

Clear Response