CP Quiz 1 Results for Ali Asad

ⓘ Correct answers are hidden.

Score for this attempt: 10 out of 10
Submitted Aug 29 at 1:34pm
This attempt took 4 minutes.

Question 1
1 / 1 pts

How many distinct pairs can be formed out of *n* people?

- n! / 2
- n choose 2
- (n choose 2) / 2
- 2^n

Question 2
1 / 1 pts

2^n is the number of ways to choose _____.

- n people out of 2^n
- a set of people out of n
- 2 people out of n
- n people out of a set

Question 3
1 / 1 pts

Assuming even *n*, the binomial coefficient, *n* choose k, takes the largest value for which value of k?

- n/2
- k/2
- 1
- n

Question 4
1 / 1 pts

T/F: *n-choose-k* is in $O(2^n)$.

- True
- False

Question 5
1 / 1 pts

The algorithms discussed in class for the **Bar Fight Prevention Problem** were all exponential time.

- (●) True
- ( ) False

Question 6
1 / 1 pts

A language, in the sense studied in this course, is a(n) _____.

- ( ) alphabet
- (●) set of strings
- ( ) boolean function
- ( ) Turing Machine

Question 7
1 / 1 pts

Consider a function $f : \{0,1\}^* \rightarrow \{0,1\}$. In what sense can we call this function related to a language?

- ( ) the function maps infinitely many strings to 0 or 1
- ( ) the function maps 0 or 1 to infinitely many strings
- ( ) the language contains the entire domain of the function
- (●) the languge contains only those strings that are mapped to 1

Question 8
1 / 1 pts

A larger alphabet Turing Machine and a multi-tape Turing Machine both decide the same class of languages as the standard single tape Turing Machine model.

- (●) True
- ( ) False

Question 9
1 / 1 pts

Not every Turing Machine can be encoded as a string.

- ( ) True
- (●) False

Question 10
1 / 1 pts

There exists a Universal Turing Machine that can simulate the workings of any Turing Machine.

- (•) True
- ( ) False

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