1.

Question 1

When will you be most likely be given an opportunity to show off your ability to code?

1 / 1 point

During the screening call

During a technical interview

During the Quiz

Correct

That’s correct. A technical interview will give you an opportunity to display your ability to code.

2.

Question 2

How many representations can be made from a byte?

1 / 1 point

128

256

64

Correct

That's correct! 2^8 or (2x2x2x2x2x2x2x2)

3.

Question 3

If an application returned a result after one computation it ran in:

1 / 1 point

O(log(n))

O(n)

O(1)

Correct

That's correct. This means that it returns after the first check.

4.

Question 4

Which of the following equations can be said to be true:

1 / 1 point

auxiliary space = space complexity + input space

input space = space complexity + auxiliary space

space complexity = input space + auxiliary space

Correct

That's correct! Space complexity is a combination of the space taken by the input, plus any additional space needed to make the computations.

5.

Question 5

In relation to data structures mutability refers to:

1 / 1 point

The initial limitations on the size that they can grow to.

The use of one data structure as a container to mimic another.

Whether a structure can be changed after its completion.

Correct

That's correct. Mutability refers to an object’s ability to change once it has been instantiated.

6.

Question 6

True or false: Lists are objects therefore can be sorted.

1 / 1 point

True

False

Correct

That's correct! Casting a list as an object means that it has the extra functionality to sort its contents.

7.

Question 7

In relation to coding what is modularization?

1 / 1 point

A data structure that can allow you store your data in accessible chunks.

Using the most up-to-date techniques when engaging with a coding challenge.

Wrapping the code into a function means that you can call it repeatedly in your code.

Correct

That's correct! Some code gets used repeatedly, wrapping it in a function for repeated calls is a good time saving technique.

8.

Question 8

In relation to trees, what is the difference between a depth first and breadth first search?

1 / 1 point

A depth first approach will travel from top to bottom through sibling nodes, while a breadth first will travel through each level.

A depth first will investigate nodes with greater detail, while a breadth first is more superficial in approach.

A breadth first is more thorough so will return the result faster.

Correct

That's correct. Both approaches take a different way of searching the tree, which is faster is dependent on where the data is stored.

9.

Question 9

Which of the following statements are true?

1 / 1 point

A hash table decreases space usage to increase speed.

A hash table increases space usage to increase speed.

A hash table decreases speed to decrease space usage

Correct

That's correct. A hash table has the additional overhead of lookup tables that increase the rate of speed. This offers quicker searches but takes more overhead.

10.

Question 10

True or false: Dynamic programming is about using dynamic structures when coding.

1 / 1 point

True

False

Correct

That's correct is relates more to the approached used when coding over the type of structures used.