

# Computer Science Quiz

1. Convert the decimal number 13 to binary and hexadecimal. Show your work.
2. What is binary 0101 in decimal and hexadecimal.
3. True or False: JavaScript is interpreted in your web browser.
4. Name the five primitive data types listed in the book.
5. Name the two composite data types listed in the book.
6. Which version of JavaScript are you learning in the book (ES what)?
  - A. ES4
  - B. ES5
  - C. ES6
  - D. ESNext
7. Write out the truth tables for logical AND, logical OR, and logical NOT.
8. What do the acronyms FIFO and LIFO stand for?

9. You put your laundry in the laundry basket first, but your sister's laundry gets washed first because she "stacked" her laundry on top of yours. Is this an example of FIFO or LIFO?

10. True or False: the string primitive datatype needs quotes.

11. Create a variable containing an object describing yourself.

12. Which method removes the element of an array at index [0]?

- A. .join()
- B. .shift()
- C. .pop()
- D. .reduce()

13. Which property do you use to find the number of elements in an array or the number of characters in a string?

14. What will log to the console with the following code?

```
var testString = "acceptable" //this is misspelled, and a trick question  
testString[6] = "a";  
console.log(testString);
```

15. Mitsuku the chatbot won the Loebner Prize again! This competition is based on what kind of test?

- A. The MIT test for AI
- B. The Turing Test
- C. Minimum Intelligent Signal Test

16. What is the moral dilemma pertaining to how an autonomous vehicle (like a Google car) chooses who dies in an accident called?
17. True or False, according to the text, the key in the key:value pair of an object is a string.
18. True or False: variable names can contain spaces.
19. True or False: A chain of if...else statements must end with an else statement.
20. What is the name of the bug/error in which a loop's condition never evaluates to false and can possibly lock up your computer?
21. Which type of loop sets up a variable, a condition, and an increment before the loop body executes?
22. Write a for loop that fills the first ten elements of an array with each element's corresponding index number. Then log the array to the console using the .join() method.
23. If you want to save your file as an html document, which file extension(s) would work?
  - A. .html
  - B. .js
  - C. .txt
  - D. .htm
  - E. both A and D are true

24. What should be the very first line in an html file? (best answer)

- A. <!DOCTYPE html>
- B. <!DOCTYPE html5>
- C. <html>
- D. <head>

25. Blocks of code used in conditionals and loops are denoted with

- A. Parentheses ()
- B. Square brackets []
- C. Curly brackets {}

26. What gets logged to the console with this statement?

```
console.log(!true || false);
```

27. What gets logged to the console with this statement?

```
console.log(2**3);
```

28. What was JavaScript's original name when Brendan Eich wrote it in 1995?

29. What will print to the console with this code?

```
var originalNumber = 75;
var number = originalNumber;
var remainder;
var answerArray = [];
while (number >= 1) {
  remainder = number % 2;
```

```
answerArray.unshift(remainder);  
number = Math.floor(number/2);  
}  
console.log(originalNumber + " in binary is " + answerArray.join("") + ".");
```

30. What does the word "bit" stand for?

31. Which equals would you want to use for an exact comparison?

A. =

B. ==

C. ===

32. What is the order of operations for the boolean operators?

A. && (AND) evaluates before || (OR) which evaluates before ! (NOT)

B. || evaluates before && which evaluates before !

C. ! evaluates before || which evaluates before &&

D. ! evaluates before && which evaluates before ||

33. What does Math.random() return?

34. Conditionals and loops are...

A. Control Structures

B. Data Structures

C. Queues

35. What gets logged to the console with this statement?

```
console.log(Math.floor(5.5));
```

36. What will be logged to the console?

```
var num = 21;  
console.log(21%6);
```

37. What is the output for the following code?

```
var vehicles = ["Corvettes", "Mustangs", "Passenger Vans"];  
console.log(vehicles.join(" are faster than ") + ".");
```

38. How do I access the value "Aunt Debbie" in the following object?

```
var myStudent = {  
  age: 17,  
  "emergency contacts": ["Uncle Tom", "Grandma Betty", "Aunt Debbie"],  
  "favorite sport": "basketball"  
}
```

39. What is NOT true about machine language?

- A. It doesn't need to be compiled.
- B. It doesn't need to be assembled.
- C. It is the same for all machines.
- D. It is the computer's native language.
- E. It is a binary language.

40. What is the bug (or error) in this code called? Don't run this code.

```
var i = 10;  
while (i <= 10) {  
  console.log("What's wrong?");  
  i--;  
}
```

41. True or False: You can concatenate strings and arrays the same way.

42. What is the best data type for storing a list of items? (Don't overcomplicate the question.)

A. number

B. string

C. null

D. boolean

E. undefined

F. array

G. object

43. What will log to the console with this code?

```
var myString = "WOW!"
```

```
console.log(myString.slice(1));
```

44. What method changes lowercase letters in a string to uppercase letters?

45. This is from the AI video. What kind of system is the Chinese government implementing with an AI that docks points from your score if you (or even a family member) go to places or do things the government doesn't like, thus, affecting what you can and can't do in life is....

A. social credit system

B. tallies system

C. no-go system

D. government debit system

46. True or False: JavaScript and Java are the same programming language. (Please get this right.)

47. Define syntax.

48. Give an example of one of JavaScript's unary operator.
49. I want to set up a link to YouTube in my html document. The path to You Tube needs to be an absolute path. Which <a> tag would be correct?
- a. <a href="<https://www.youtube.com/>">Click here to go to You Tube</a>
  - b. <a href="<youtube.com>">Click here to go to You Tube</a>
50. An arcade game notifies users how many tickets they've won based on how high their score is. Set up a chain of if...else statements that will accomplish the following. Users that score greater than or equal to 1000 points win 10 tickets. Users that score greater than or equal to 500 points win 5 tickets. All other players win 2 tickets. Utilize console.log to notify the users.