1. **What is compiled and interpreted language**

    Answer: **compiled language**(source code is private, often faster , ready to run) , examples of compiled programming languages include(C,C++,OBJECT C)

    Interpreted language(public source code, simpler to test, easier to debug), examples of an interpreted programming language include (PHP, JavaScript)

2. **What is primitive data type and what do we mean when we say it's not a mutable**

    Answer: When creating a variable, it reserves a space for itself in the memory. The variable 'a' has space in memory which holds its value. When we try to change the value of 'a' by assigning another value like let a = 6, it doesn't alter the value of the original a, it just creates a new variable 'a' with the new value 6

3 **Change the number 10 to binary and reverse it back to 10**

    Answer: to binary = 1010 and reversing back $1*2^3 + 0*2^2 + 1*2^! + 0*2^0 = 10$

4. **How do you check the type of the data**

    Answer: using 'typeof' syntax

5. **What is the difference between null and undefined**

    Answer: The difference is, that null exactly implies there is no value but for undefined, anything that is which is not defined is undefined

6. **What is precedence in javascript**

    Answer: A way javascript prioritizes operators (bracket, negation, logical and, logical or.. etc)

7. **What is binding in javascript and what are the keywords for binding and the difference between those bindings**

    Answer: Association of a variable name with a value in a particular scope

8. **What are arithmetic operators, logical operators, post and pre-increment?**

    Answer: arithmetic operators (+,-,*,/,%), logical operators (>,<,>=,<=,!=,!=,!==,==,===) , post and pre-increment (++ --)

9. **What is the difference between logical operators and bitwise operators**

    Answer: logical operators: operate on boolean value or boolean expressions

    bitwise operators: operate on individual bits of binary representation of numbers

10. **What is the problem with this string "My name is Ayelele I went to "AKHS" university to attend higher studies"**

Answer: the inner term that says AKHS should be in a single quotation or the starting quotation can be a single quotation and the inner quotation for AKHS can be a double quotation, so that closing confusion on execution could be avoided.

11 What is automatic type conversion

Answer: the changing of data type of a value from one type to another type

12. Why does the comparison null == undefined give true and why does the comparison null === undefined give a false

Answer: the "==" operator performs type coercion, and when comparing "null" and "undefined", they are considered equal after coercion so it will give true

the "===" operated by comparing both type and value and when checking the type both are different types so it will give false

13. why the comparison null > 0 give false

Answer : on type coversion null is translated as number '0' so '0'>'0' will give a false result

14. why the comparison null == 0 gives false

Answer : ECMAScript have a specification for null and undefined where both are equal(not strict equality) to each other but not to any other value

15. why the comparison null >= 0 gives true

Answer: as null will be converted to 0 and 0>=0 will give an output of true

16. why the comparison undefined > 0 gives false

Answer: on type conversion undefined will be changed to NaN leading to an output of false

17. why the comparison undefined < 0 gives false

Answer: on type conversion undefined will be changed to NaN leading to an output of false

18. why the comparison undefined == 0 gives false

Answer: on type conversion undefined will be changed to NaN leading to an output of false

19. what is the result of (8*null) and why

Answer : null will be translated to 0 so 8*0 = 0 will be the answer

20. what is the result of "5"-1 and why

Answer: it will give 4 by converting the data type of stringified 5 to a number type

21. what is the result of "5"+1 and why

    Answer: it will give 51 due to concatenation

22. what is the result of ('five' * 2) and why

    Answer: it will give NaN, since 'five' cant be converted into any number

23. what is the result of (false == 0) and why

    Answer : it will give true because false is converted to 0

24. why "5" > "radela" false

    Answer : when comparing each term at a time, "5" Unicode code point is 53 and "r" Unicode code point is "144" so it will give false