🧠 JAVASCRIPT BASIC TEST (30 MARKS)

Section A – Multiple Choice Questions (1 mark each)

What will the following code output?

```
 const arr = [1, 2, 3];
arr.push(4);
console.log(arr.length);
```

1. a) 3
   b) 4
   c) 5
   d) Error

2. Which of the following removes the first element of an array?
   a) `pop()`
   b) `shift()`
   c) `splice(0, 1)`
   d) Both b and c

What will this return?

```
 typeof null
```

3. a) "null"
   b) "undefined"
   c) "object"
   d) "number"

4. What is the correct way to declare a variable that cannot be reassigned?
   a) `var x = 10`
   b) `let x = 10`
   c) `const x = 10`
   d) `constant x = 10`

5. Which operator is used to compare both value and type?
   a) `==`
   b) `=`
   c) `===`
   d) `!=`

What will this output? 5" + 2

6. a) 7
   b) "52"

c) NaN
d) Error

7. How can you copy part of an array without modifying the original array?
   a) `splice()`
   b) `slice()`
   c) `shift()`
   d) `pop()`

8. What does `map()` return?
   a) A new array
   b) The same array
   c) A number
   d) Nothing

9. How do you delete a property `age` from an object `person`?
   a) `person.remove(age)`
   b) `delete person.age`
   c) `person.delete(age)`
   d) `person.age = null`

What is the output of:

typeof NaN

10. a) "undefined"
    b) "object"
    c) "NaN"
    d) "number"

Section B – Short Questions (2 marks each)

11. Explain the difference between `slice()` and `splice()` in arrays.
12. How can you iterate over all properties of an object in JavaScript?
13. What is the difference between `==` and `===`? Give one example.
14. Write a small code snippet to convert a string `"123"` to a number.
15. Write a code snippet to find the last element of an array without using `pop()`.

Section C – Long Questions (5 marks each)

16. **Implement a small program to manage an array of fruits.**

- Start with `["apple", "banana"]`
- Add `"mango"` at the end

- Add `"kiwi"` at the start
- Remove the last fruit
- Display the final array

17. **Implement CRUD operations on an object representing a student.**

- Create an object with `name`, `age`, and `grade`
- Update the `grade`
- Add a new property `course`
- Delete the `age` property
- Log the final object