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Answer to the Question No: 01Synchronous JavaScript:

In synchronous code execution, statements are executed line by line, and each statement has to wait for the previous one to finish executing before moving to the next. This means that if there is a time-consuming task, it will block the execution of subsequent code until it completes.

Example:

```
console.log("First");  
console.log("Second");  
console.log("Third");
```

In this example, "First" is logged first, followed by "Second" and then "Third". The code execution is sequential and each "console.log" waits for the previous one to finish before executing.

Asynchronous JavaScript:

Asynchronous code allows tasks to be executed separately from the main program flow. This means that time-consuming tasks can be initiated and the program can continue to execute other code without waiting for the completion of those tasks.

Example:

```
console.log("First");  
setTimeout(function() {  
    console.log("Second");  
}, 2000);  
console.log("Third");
```

In this example, "First" is logged, then "setTimeout" is called with a callback function that logs "Second" after a delay of 2 seconds. Meanwhile, "Third" is logged immediately after "setTimeout" without waiting for the delay to complete.

Answer to the Question NO: 02

```
<!DOCTYPE html>
<html>
<head>
  <title> Form Validation </title>
</head>
<body>
  <h2> Form Validation </h2>
  <form id="myForm" onsubmit="validateForm(event)">
    <label for="name"> Name: </label>
    <input type="text" id="name" name="name" required></input>
    <label for="email"> Email: </label>
    <input type="email" id="email" name="email" required></input>
    <label for="password"> Password : </label>
    <input type="password" id="password" name="password"
      required></input>
    <input type="submit" value="Submit">
  </form>
  <script>
    function validateForm(event) {
      event.preventDefault();
```

(P.T.O)

```
const name = document.getElementById('name').value;  
const email = document.getElementById('email').value;  
const password = document.getElementById('password').value;
```

```
if (name == "") {  
    alert('Please enter your name.');
```

return;

```
}  
if (email == "") {  
    alert('Please enter your email');
```

return;

```
}  
if (!validateEmail(email)) {  
    alert("Please enter a valid email");  
    return;  
}  
if (password == '') {  
    alert('Please enter your password');
```

return;

```
}  
alert('Form submitted successfully!');
```

```
}  
</script>  
</body></html>
```

Answer to the Question No: 03

```
function FindEvenNumber() {  
  for(let i=1; i<=100; i++) {  
    if (i%2 === 0) {  
      console.log(i);  
    }  
  }  
}
```