



## Answersheet

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No. of questions attempted: 3

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Assignment: Event Loop and Callback Queue in JavaScript  
Total no. of questions: 3

Total marks: 3

Result: **Not reviewed yet**

Sl. No.	Question	Actions
1	<p>What is the role of the event loop in JavaScript? 1 mark</p> <ol style="list-style-type: none"><li>1. Ensuring the precise timing of asynchronous operations using <code>setTimeout</code> and <code>setInterval</code>.</li><li>2. Enabling the execution of synchronous code alongside asynchronous tasks without conflicts.</li><li>3. Ensuring JavaScript remains single-threaded and non-blocking. It puts functions in callback queue to the callstack whenever callstack it free.</li><li>4. Optimizing code performance by eliminating unnecessary delays.</li></ol>	<p><b>Correct answer</b></p> <p>1 mark</p>
2	<p>What happens during synchronous code execution in JavaScript? 1 mark</p> <ol style="list-style-type: none"><li>1. Asynchronous tasks are executed alongside synchronous code, leading to potential conflicts.</li><li>2. JavaScript remains single-threaded, and each line of code is executed one after the other, blocking further execution until completion.</li></ol>	<p><b>Correct answer</b></p> <p>1 mark</p>



3. Synchronous tasks are executed concurrently, allowing for faster code execution.

4. JavaScript code execution occurs independently of any external factors, ensuring consistent performance.

3

**How are asynchronous tasks managed in JavaScript?**

1 mark

1. They are executed in parallel with synchronous code, utilizing multiple threads.

2. They are deferred until all synchronous tasks are completed, ensuring a smooth execution flow.

3. They are executed immediately, regardless of the current state of the execution context.

4. They are scheduled in the callback queue and event loop, allowing them to be processed when the main thread is free.

**Correct answer**

1 mark