Question 1: What is JavaScript? Explain the role of JavaScript in web development.

Answer:
JavaScript is a programming language used to make websites **active, interactive, and dynamic**.
HTML gives structure, CSS gives style, and JavaScript gives **life** to a webpage.

Role of JavaScript in Web Development:

- Helps websites respond to user actions (click, typing, scrolling).

- Can show messages, hide sections, create animations.

- Validates forms (checking email, phone number).

- Updates website content without refreshing (like Instagram feed).

- Powers modern web apps like Gmail, YouTube, Facebook.

New Easy Example:

If a button says **"Click me"** and when you click it, it shows a message —
that action is done using JavaScript.

Question 2: How is JavaScript different from Python or Java?

Answer:
JavaScript, Python, and Java are all programming languages, but they are used for different things.

Differences:

Feature	JavaScript	Python	Java
Where used	Browsers & Web	Data science, AI	Large applications
Speed	Fast for web	Slower than JS	Fast & powerful
Syntax	Easy & flexible	Very simple	Strict rules
Execution	Runs in browser	Runs in system	Needs JVM

Example:

- JavaScript can change text on a webpage instantly.

- Python cannot do that directly.

- Java needs more setup just to print something.

Question 3: Discuss the use of <script> tag. How to link an external JS file?

Answer:
The <script> tag is used to write JavaScript inside an HTML page.

Two ways to use <script>:

1) Internal Script

JavaScript inside HTML file:

<script>

  alert("Hello from internal script!");

</script>

2) External Script

You write JavaScript in a **separate .js file** and link it.

HTML:

<script src="main.js"></script>

JavaScript (main.js):

console.log("This is external JS file");

Example:

You can place the <script> tag at the bottom of your HTML body so the page loads faster.