

## Section 1: General Internet Programming Questions

1. Briefly explain the basic working principle of the Internet.
2. Explain the difference between an IP address and DNS.
3. Specify the differences between TCP and UDP.
4. On which layer does the HTTP protocol operate and what are its basic features?
5. How do web browsers work? Explain the process of loading a web page step by step.
6. What is the difference between Frontend and Backend? Explain with examples.
7. Explain the differences between JSON and XML.
8. What is a Restful API? What is it used for?
9. Explain the advantages of the HTTPS protocol used for secure internet communication.
10. What are Cookies? How are they used in websites?

## Section 2: HTML and CSS Sample Questions

1. Predict the output of the following HTML code:

```
<!DOCTYPE html>
<html>
<head>
  <title>Sample Page</title>
</head>
<body>
  <h1>Hello World!</h1>
  <p>This is a paragraph.</p>
  <a href="https://www.google.com">Go to Google</a>
</body>
</html>
```

2. Explain the difference between <div> and <span> tags.
3. Explain at least 5 form elements in HTML.
4. What is the difference between ID and Class selectors in CSS? Explain with example code.

The following CSS code applies to which elements?

```
p {
  color: red;
  font-size: 16px;
}
```

5. Explain at least 3 new tags introduced in HTML5.
6. How do you center a div element horizontally and vertically using CSS Flexbox?
7. What is Responsive Web Design? Write an example CSS media query.
8. Which tags are used to merge rows and columns in HTML tables?
9. How do you add a hover effect to a button using CSS? Write sample code.

## Section 3: Network Protocols Questions

1. Explain the basic differences between HTTP and HTTPS.
2. What is FTP? For what purposes is it used?
3. Explain the difference between SMTP and POP3 protocols.
4. What is DNS? Briefly describe how it works.
5. What does the DHCP protocol do?
6. What do HTTP 404 and HTTP 500 error codes mean?
7. Explain the difference between Telnet and SSH.
8. What is a VPN and what is it used for?