

King Saud University  
College of Computer and Information Sciences  
Department of Computer Science  
CSC 457 Internet Technologies

Second Semester, 1443 H

Time: 6:30 – 8:00 PM

(Answer all 10 questions)  
Midterm Exam

Student Name : \_\_\_\_\_ Student Number : \_\_\_\_\_

**Question 1.** What are the underlying technologies that make internetworking work successfully? (10 points)

- ☒ Packet Switching, Routers, TCP/IP, Clients + Servers = Distributed Computing, and Computer Names.
- ☐ Circuit Switching, Routers, TCP/IP, Clients + Servers = Distributed Computing, and Computer Names.
- ☐ Packet Switching, Circuit Switching, Routers, TCP/IP, Clients + Servers = Distributed Computing, and Computer Names.
- ☐ Circuit Switching, Routers, TCP/IP, Clients + Servers = Distributed Computing, and Computer Devices.
- ☐ None of the above

**Question 2.** What is the main purpose of DNS servers? Select all relevant (10 Points)

- ☒ Maps domain names into IP addresses
- ☐ Receives requests from other DNS servers to map domain names into IP request
- ☒ Reverse IP address lookup
- ☒ List of mail servers
- ☐ All of the above

**Question 3.** What is a web server? Select the most relevant one (10 Points)

- ☒ Web servers are the computers that actually run websites
- ☐ A computer program that is responsible for accepting HTTP requests from processors
- ☐ A computer program that send HTTP responses along with optional data processing address
- ☐ All of the above

**Question 4.** What is a Virtual Host? (10 Points)

- ☐ Virtual hosting is a method that servers such as web servers use to host more than one domain name on the same computer
- ☐ Virtual hosting is a method that servers such as web servers use to host more than one domain name on the same IP address

Virtual web hosting is a good solution for small- to medium-sized websites that aren't constantly being visited or that have reasonable bandwidth needs

☒ All of the above

Question 5. Write an HTML file to create a webpage that has the following features (20 points):

- Title of the webpage "CSC457 Internet Technologies"
- Background color is yellow, center alignment, font color is red, and font size 24pt using class attribute and CSS external file.
- Write "This is a red centered paragraph" in the webpage.

style.css file:

```
body { background: yellow;
      text-align: center; font-size: 24pt; color: red }
```

index.html file:

```
<html>
<head> <title> CSC 457 Internet Technologies </title>
<link rel="stylesheet" href="style.css">
</head>
<body> <p> This is a red centered paragraph </p>
</body>
</html>
```

*class attribute*

Question 6. What is a plug-in and what is a helper application? (10 points)

☒ A plug-in is a code module that the browser fetches from a special directory on the disk and installs as an extension to itself

☐ Helper Applications receives requests from other DNS servers to map domain names into IP request

☒ A plug-in runs as an integral part of the browser (i.e. in the same process).

☒ A plug-in is removed from the browser's memory upon leaving the page from where it is referenced

☒ Helper Applications is standalone application run as a separate process.

☐ All of the above

Question 7. What are cookies? (10 points)

☒ A cookie is a small piece of information as a file (up to 4K) stored on the client machine in a user-specific cookies-directory for keeping track of return visitors.

☐ A cookie is a small piece of information as a file (up to 4K) stored on the server machine in a user-specific cookies-directory for keeping track of return visitors.

- ☒ Cookies are generated at the server side and is delivered to the browser before the Web page.
- ☐ Cookies are generated at the client side and is delivered to the browser before the Web page.
- ☐ None of the above

Question 8. What are the main three important items attached to DOM? Select the most relevant one (10 points)

- ☐ Properties, methods, and objects
- ☐ Methods, functions, and properties
- ☒ Properties, methods, and events.
- ☐ Properties, methods, and background
- ☐ All of the above

Question 9. Write an HTML code using Java script to popup an alert has a "Hello World" message when clicking on a button? (10 points)

```
<html>
<head> <title> Popup test </title>
<script> function popup() { alert("Hello World"); } </script>
</head>
<body>
<button type="button" onclick="popup()"> click me! </button>
</body>
</html>
```

Question 10. Write an HTML code using java script to detect and display the following properties of a browser: Browser type, if cookie is enabled, and the language being used. (10 points)

```
<html>
<head> <title> Browser Info </title>
</head>
<body> <p id="info"> </p>
<script> let b-type = navigator.userAgent;
let cookie = navigator.cookieEnabled;
let lang = navigator.language;
var f = document.getElementById("info");
f.innerHTML = "Browser type: " + b-type + "<br> cookie enable?"
+ cookie + " <br> language: " + lang; </script>
</body>
</html>
```

**Question 3.** Write an HTML code to create a webpage that has the following features (30 points):

- 1- Title of the webpage "CSC457 Internet Technology"
- 2- Background color is yellow, center alignment, and font size 24pt using class attribute and CSS external file.
- 3- Write "This is a red centered paragraph" in the webpage.

Answer:

CSS file : test1.css  
body{ background-color: yellow}

p.red {font-size: 24pt; color: red}  
p.center {text-align: center;}

Html File :

```
<html>

<head>
<title> CSC457 Internet Technology </title>
<link rel="stylesheet" type="text/css" href="test1.css" />

</head>
<body>

<p class="red center"> This is a red centered paragraph. </p>

</body>
</html>
```

**Question 5.** Write a JavaScript to detect the following properties of browser:

Browser type , if cookies enabled , the language being used.

```
<html>

<body>

<p id="infoBrowser"></p>

<script>

document.getElementById("infoBrowser").innerHTML

="Brosver Type is "+navigator.userAgent

+" Cookie "+navigator.cookieEnabled

+" language: "+navigator.language;

</script>

</body>

</html>
```

**Question 4.** Write HTML code using JavaScript popup an alert has " HELLO WORD" Message when clicking on a button:

```
<html>

<head>

<script language="javascript">

<!--

function popup() {

alert("Hello World")

}

-->

</script>

</head>

<body>

<input type="button" onClick="popup()" value="Click Here">

</body>

</html> Click to see result
```