

CSA43-INTERNET PROGRAMMING

Question1: START

Which of the following components is not part of the LAMP stack?

Question1: END

Option : a) Linux

Option :b) Apache

Option :c) MySQL

Option :d) Windows

Correct Option: d) Windows

Question2: START

In WAMP, which component is responsible for serving web pages?

Question2: END

Option :a) Windows

Option :b) Apache

Option :c) MySQL

Option :d) PHP

Correct Option b) Apache

Question3: START

Which command starts the Apache server in LAMP?

Question3: END

Option:a) service apache2 start

Option:b) apachectl stop

Option:c) mysql start

Option:d) httpd shutdown

Correct Option a) service apache2 start

What is the default port number for MySQL in LAMP?

Question4: END

Option:a) 3306

Option:b) 80

Option:c) 8080

Option:d) 22

Correct Option: a) 3306

Question5: START

Which configuration file is primarily used to set up Apache in a LAMP environment?

Question5: END

Option:a) httpd.conf

Option:b) my.cnf

Option:c) php.ini

Option:d) lamp.conf

Correct Option:a) httpd.conf

Question6: START

Which protocol is primarily used to transfer web pages?

Question6: END

Option:a) FTP

Option:b) SMTP

Option:c) HTTP

Option:d) IMAP

Correct Option: c) HTTP

Question7: START

What is the role of a web client?

Question7: END

Option:a) Serve content to users

Option:b) Request content from a server

Option:c) Manage databases

Option:d) Configure networks

Correct Option: b) Request content from a server

Question8: START

What will happen when you run the following code?

Question8: END

<audio controls>

<source src="song.mp3" type="audio/mpeg">

<source src="song.ogg" type="audio/ogg">

Your browser does not support the audio element.

</audio>

Option: a) The audio will not play because there is no `autoplay` attribute.

- Option:** b) The browser will play `song.mp3` if supported; otherwise, `song.ogg`.
Option: c) The browser will only play `song.ogg`.
Option: d) The audio element is deprecated in HTML5.

Correct Option: b) The browser will play `song.mp3` if supported; otherwise, `song.ogg`.

Question9: START

What will happen if the following code runs on a browser that doesn't support `MP4`?

Question9: END

```
<video controls>
  <source src="video.mp4" type="video/mp4">
  <source src="video.webm" type="video/webm">
  Your browser does not support the video tag.
</video>
```

- Option:** a) The browser will show an error.
Option: b) The browser will skip `video.mp4` and play `video.webm`.
Option: c) The browser will not show the video controls.
Option: d) The video will play anyway because of fallback support.
Correct Option: b) The browser will skip `video.mp4` and play `video.webm`.

Question10: START

What is the output when the following form is submitted without entering text?

Question10: END

```
<form>
  <label for="email">Email:</label>
  <input type="email" id="email" name="email" required>
  <button type="submit">Submit</button>
</form>
```

- Option:** a) Form submits successfully.
Option: b) Form does not submit and shows an error.
Option: c) The `required` attribute is ignored.
Option: d) The form submits but the server receives an empty string.
Correct Option: b) Form does not submit and shows an error.

Question11: START

What will the `poster` attribute do in the following code?

Question11: END

```
<video controls poster="thumbnail.jpg">
```

```
<source src="movie.mp4" type="video/mp4">
</video>
```

Option: a) Show a play icon over the video.

Option: b) Display `thumbnail.jpg` before the video starts.

Option: c) Auto-play the video with the thumbnail.

Option: d) Nothing, the attribute is deprecated.

Correct Option: b) Display `thumbnail.jpg` before the video starts.

Question12: START

What does the following JavaScript code do?

Question12: END

```
<canvas id="myCanvas" width="200" height="100"></canvas>
<script>
    var c = document.getElementById("myCanvas");
    var ctx = c.getContext("2d");
    ctx.fillStyle = "blue";
    ctx.fillRect(20, 20, 100, 50);
</script>
```

Option: a) Draws a blue circle.

Option: b) Draws a blue rectangle.

Option: c) Shows a blue background.

Option: d) Throws an error.

Correct Option: b) Draws a blue rectangle.

Question13: START

What will happen when you run the following code?

Question13: END

```
<audio controls>
```

```
<source src="song.mp3" type="audio/mpeg">
```

```
<source src="song.ogg" type="audio/ogg">
```

Your browser does not support the audio element.

```
</audio>
```

Option: a) The audio will not play because there is no `autoplay` attribute.

Option: b) The browser will play `song.mp3` if supported; otherwise, `song.ogg`.

Option: c) The browser will only play `song.ogg`.

Option: d) The audio element is deprecated in HTML5.

Correct Option: b) The browser will play `song.mp3` if supported; otherwise, `song.ogg`.

Question14: START

What will happen if the following code runs on a browser that doesn't support MP4?

Question14: END

```
<video controls>
```

```
  <source src="video.mp4" type="video/mp4">
```

```
  <source src="video.webm" type="video/webm">
```

Your browser does not support the video tag.

```
</video>
```

Option: a) The browser will show an error.

Option: b) The browser will skip `video.mp4` and play `video.webm`.

Option: c) The browser will not show the video controls.

Option: d) The video will play anyway because of fallback support.

Correct Option: b) The browser will skip `video.mp4` and play `video.webm`.

Question15: START

What is the output when the following form is submitted without entering text?

Question15: END

```
<form>
```

```
  <label for="email">Email:</label>
```

```
  <input type="email" id="email" name="email" required>
```

```
  <button type="submit">Submit</button>
```

```
</form>
```

Option: a) Form submits successfully.

Option: b) Form does not submit and shows an error.

Option: c) The `required` attribute is ignored.

Option: d) The form submits but the server receives an empty string.

Correct Option: b) Form does not submit and shows an error.

Question16: START

What is the default behavior of this button when clicked?

Question16: END

```
<form action="submit.php">  
  
    <button type="button">Submit</button>  
  
</form>
```

Option:a) Submits the form to `submit.php`.

Option: b) Does nothing.

Option:c) Triggers form validation.

Option: d) Throws a JavaScript error.

Correct Option: b) Does nothing.

Question17: START

What happens if the user enters a negative number here?

Question17: END

```
<input type="number" min="0" max="100">
```

Option:a) The browser prevents entering negative numbers.

Option: b) The browser accepts the negative number but shows an error on form submission.

Option: c) The browser accepts the negative number without warnings.

Option: d) The input is ignored.

Correct Option: b) The browser accepts the negative number but shows an error on form submission.

Question18: START

What is the maximum date allowed here?

Question18: END

```
<input type="date" max="2025-12-31">
```

Option:a) December 30, 2025

Option: b) December 31, 2025

Option: c) January 1, 2026

Option: d) No date restriction applies

Correct Option: b) December 31, 2025

Question19: START

How many files can be selected with the following input?

Question19: END

`<input type="file" multiple>`

Option:a) One file only

Option: b) Two files maximum

Option: c) Multiple files

Option:d) Unlimited files until the browser limit

Correct Option: d) Unlimited files until the browser limit

Question20: START

Which of the following is not a valid attribute for this input?

Question20: END

`<input type="text" id="username">`

Option: a) required

Option: b) pattern

Option: c) max

Option: d) placeholder

Correct Option:c) max *(This applies to **number** inputs, not **text**.)*

Question21: START

What is the purpose of the `<section>` element in this snippet?

Question21: END

`<section>`

`<h2>About Us</h2> <p>We are a leading tech company.</p>`

`</section>`

Option:a) It adds styling to the content.

Option: b) It groups related content together.

Option: c) It makes text bold.

Option: d) It has no semantic meaning.

Correct Option: b) It groups related content together.

Question22: START

Which semantic tag is best for the following scenario: *"Defining the main navigation links of a website"*?

Question22: END

```
<nav> <ul>

    <li><a href="/home">Home</a></li>

    <li><a href="/about">About</a></li>

</ul>

</nav>
```

Option:a) <header>

Option: b) <nav>

Option: c) <section>

Option: d) <aside>

Correct Option: b) <nav>

Question23: START

What will happen when you drag the item in the following code?

Question23: END

```
<div id="dragItem" draggable="true">Drag me!</div>
```

Option:a) Nothing happens since **draggable** is ignored.

Option: b) The item can be dragged but not dropped.

Option: c) The item can be dragged and dropped anywhere.

Option: d) A JavaScript event must be attached for it to work.

Correct Option: b) The item can be dragged but not dropped. (*Drop events are needed.*)

Question24: START

What event is required to allow an element to be a drop target?

Question24: END

Option:a) dragenter

Option: b) dragover

Option: c) drop

Option: d) dragstart

Correct Option:b) dragover (*and **drop** must also be handled.*)

Question25: START

25. What will the **poster attribute do in the following code?**

Question25: END

```
<video controls poster="thumbnail.jpg">  
    <source src="movie.mp4" type="video/mp4">  
</video>
```

Option:a) Show a play icon over the video.

Option: b) Display **thumbnail.jpg** before the video starts.

Option:c) Auto-play the video with the thumbnail.

Option:d) Nothing, the attribute is deprecated.

Correct Option: b) Display **thumbnail.jpg** before the video starts.

Question26: START

Which event is fired when a video finishes playing?

Question26: END

Option:a) ended

Option: b) pause

Option: c) stop

Option: d) complete

Correct Option:a) ended

Question27: START

What does the following JavaScript code do?

Question27: END

```
<canvas id="myCanvas" width="200" height="100"></canvas>  
  
<script>  
    var c = document.getElementById("myCanvas");  
    var ctx = c.getContext("2d");  
    ctx.fillStyle = "blue";
```

```
ctx.fillRect(20, 20, 100, 50);  
</script>
```

- Option:** a) Draws a blue circle.
Option: b) Draws a blue rectangle.
Option: c) Shows a blue background.
Option: d) Throws an error.

Correct Option: b) Draws a blue rectangle.

Question28: START

What will happen if the canvas ID is incorrect in the above code?

Question28: END

- Option:** a) Nothing happens.
Option: b) A runtime error occurs.
Option: c) The browser crashes.
Option: d) The canvas is created dynamically.

Correct Option: b) A runtime error occurs (*null context returned*).

Question29: START

What does the autofocus attribute do in the following code?

Question29: START

```
<input type="text" autofocus>
```

- Option:** a) Focuses on the input when the user hovers.
Option: b) Automatically submits the form.
Option: c) Focuses on the input when the page loads.
Option: d) Makes the input read-only.

Correct Option: c) Focuses on the input when the page loads.

Question30: START

Which input type should you use for selecting a date and time?

Question30: END

- Option:** a) datetime
Option: b) date-time

Option: c) datetime-local

Option: d) time

Correct Option: c) datetime-local

Question31: START

Which of these is a web server software?

Question31: END

Option: a) Chrome

Option: b) Apache

Option: c) Outlook

Option: d) PHPStorm

Correct Option: b) Apache

Question32: START

What will be the output of the following HTML5 code?

Question32: START

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Test Page</title>
</head>
<body>
  <article>
    <h2>News Article</h2>
    <p>This is a news article.</p>
  </article>
</body>
</html>
```

Option: a) Displays the heading only

Option: b) Displays the paragraph only

Option: c) Displays the heading and the paragraph

Option: d) Throws an error

Correct Option: c) Displays the heading and the paragraph

Question33: START

33. What happens if you omit the `alt` attribute in this image tag?

Question33: END

``

Option: a) Image loads without alternative text

Option: b) Image won't load

Option: c) Browser shows a default text

Option: d) HTML5 validation passes without issues

Correct Option: a) Image loads without alternative text

Question34: START

What color will the ``<p>`` element have?

Question34: END

```
<!DOCTYPE html>
<html>
<head>
  <style>
    .text { color: blue; }
    p { color: red; }
  </style>
</head>
<body>
  <p class="text">Hello World!</p>
</body>
</html>
```

Option: a) Blue

Option: b) Red

Option: c) Black

Option: d) Undefined

Correct Option: a) Blue

Question35: START

What will be the border color of the following box?

Question35: END

```
<div style="border: 5px solid transparent; border-image: url('border.png') 30
round;"></div>
```

Option: a) Transparent

Option: b) Image defined by `border.png`

Option: c) Solid black

Option: d) Throws an error

Correct Option: b) Image defined by `border.png`

Question36: START

What will be the margin around the box?

Question36: END

```
<div style="margin: 20px 10px;"></div>
```

Option: a) 20px top and bottom, 10px left and right

Option: b) 10px top and bottom, 20px left and right

Option: c) 20px on all sides

Option: d) 10px on all sides

Correct Option: a) 20px top and bottom, 10px left and right

Question37: START

What happens when the following code is executed?

Question37: END

```
<div style="width: 100px; height: 100px; padding: 20px; border: 5px solid black;
box-sizing: border-box;"></div>
```

Option: a) Box will have a total size of 100px x 100px

Option: b) Box will have a total size of 150px x 150px

Option: c) Only the border is included

Option: d) Padding is ignored

Correct Option: a) Box will have a total size of 100px x 100px

Question38: START

What does this code snippet do?

Question38: END

```
<div class="box"></div>
<style>
.box {
    width: 100px;
    height: 100px;
    background-color: green;
    transition: background-color 2s ease;
}
.box:hover {
    background-color: blue;
}
</style>
```

Option: a) Box changes color instantly when hovered

Option: b) Box changes from green to blue with a 2s transition

Option: c) Box size changes on hover

Option: d) No change occurs

Correct Option: b) Box changes from green to blue with a 2s transition

Question39: START

39.How many times does this animation run?

Question39: END

```
<div class="animated"></div>
```

```
<style>
```

```
.animated {  
    width: 100px;  
    height: 100px;  
    background-color: red;  
    animation: pulse 1s infinite;  
}  
@keyframes pulse {  
    0% { background-color: red; }  
    50% { background-color: yellow; }  
    100% { background-color: red; }  
}
```

```
</style>
```

Option: a) Once

Option: b) Twice

Option: c) Infinite times

Option: d) Never

Correct Option: c) Infinite times

Question40: START

What will be the alignment of the items in this code?

Question40: END

```
<div class="container">  
    <div>Item 1</div>  
    <div>Item 2</div>  
</div>
```

```
<style>
```

```
.container {  
    display: flex;  
    justify-content: center;  
    align-items: center;  
    height: 200px;  
    border: 2px solid black;  
}
```

</style>

Option:a) Items aligned top-left

Option: b) Items aligned center-center

Option:c) Items aligned bottom-right

Option: d) Items stacked vertically

Correct Option: b) Items aligned center-center

Question41: START

How many columns will this grid have?

Question41: END

```
<div class="grid">
  <div>1</div>
  <div>2</div>
  <div>3</div>
  <div>4</div>
</div>
<style>
.grid {
  display: grid;
  grid-template-columns: repeat(2, 100px);
}
</style>
```

Option:a) 1

Option:b) 2

Option:c) 4

Option: d) 3

Correct Option: b) 2

Question42: START

Which HTML5 element is used for defining navigation links?

Question42: END

a) <section>

b) <article>

c) <nav>

d) <aside>

Answer: c) <nav>

Question43: START

What is the effect of the CSS rule `p { text-transform: uppercase; }`?

Question43: END

Option:a) Converts all text to lowercase.

Option:b) Capitalizes the first letter of each word.

Option:c) Converts all text to uppercase.

Option:d) No effect on the text.

Correct Option: c) Converts all text to uppercase.

Question44: START

Which protocol resolves domain names to IP addresses?

Question44: END

Option:a) HTTP

Option:b) FTP

Option:c) DNS

Option:d) IMAP

Correct Option: c) DNS

Question45: START

What is the default port number for HTTPS?

Question45: END

Option:a) 80

Option:b) 8080

Option:c) 443

Option:d) 21

Correct Option: c) 443

Question46: START

Which protocol uses port 21 by default?

Question46: END

Option:a) HTTP

Option:b) FTP

Option:c) SMTP

Option:d) DNS

Correct Option: b) FTP

Question47: START

Which HTTP method is used to retrieve data from a server?

Question47: END

Option:a) POST

Option:b) PUT

Option:c) GET

Option:d) DELETE

Correct Option: c) GET

Question48: START

Which of the following is a valid HTTP status code for "Not Found"?

Question48: END

Option:a) 200

Option:b) 301

Option:c) 404

Option:d) 500

Correct Option: c) 404

Question49: START

What does the HTTP 500 status code indicate?

Question49: END

Option:a) Client error

Option:b) Redirection

Option:c) Server error

Option:d) Success

Correct Option: c) Server error

Question50: START

Which HTTP method is used to send data to a server?

Question50: END

Option:a) GET

Option:b) DELETE

Option:c) PATCH

Option:d) POST

Correct Option:d) POST

Question51: START

What does the HTTP 302 status code signify?

Question51: END

Option:a) Moved Permanently

Option:b) Found/Temporary Redirect

Option:c) Unauthorized

Option:d) Bad Request

Correct Option: b) Found/Temporary Redirect

Question52: START

Which HTML5 tag is used for embedding video?

Question52: END

Option:a) <audio>

Option:b) <video>

Option:c) <media>

Option:d) <embed>

Correct Option: b) <video>

Question53: START

Which attribute is required for the tag?

Question53: END

Option:a) alt

Option:b) href

Option:c) src

Option:d) class

Correct Option: c) src

Question54: START

Which HTML5 element defines navigation links?

Question54: END

- Option:a)** <nav>
Option:b) <header>
Option:c) <aside>
Option:d) <footer>

Correct Option:a) <nav>

Question55: START

What is the correct way to create a checkbox in HTML5?

Question55: END

- Option:a)** <input type="checkbox">
Option:b) <checkbox>
Option:c) <input checkbox>
Option:d) <check>

Correct Option: a) <input type="checkbox">

Question56: START

Which element is used to define a footer for a document or section?

Question56: END

- Option:a)** <footer>
Option:b) <bottom>
Option:c) <section>
Option:d) <end>

Correct Option: a) <footer>

Question57: START

Which attribute is used to play an audio file automatically?

Question57: END

- Option:a)** autoplay
Option:b) play
Option:c) start
Option:d) loop

Correct Option: a) autoplay

Question58: START

What does the controls attribute do in the <video> tag?

Question58: END

- Option:a)** Hides video controls
Option:b) Displays video controls
Option:c) Controls playback speed only
Option:d) Adjusts video size

Correct Option: b) Displays video controls

Question59: START

59.Which HTML5 attribute is used to specify multiple sources for an image based on device capabilities?

Question59: END

- Option:a)** alt
Option:b) src
Option:c) srcset
Option:d) media

Correct Option: c) srcset

Question60: START

The <canvas> element in HTML5 is used for:

Question60: END

- Option:a)** Audio playback
Option:b) Video playback
Option:c) Drawing graphics
Option:d) Embedding fonts

Correct Option: c) Drawing graphics

Question61: START

Which tag is used to define a clickable button in HTML?

Question61: END

- Option:a)** <click>
Option:b) <input type="button">
Option:c) <button>
Option:d) <a>

Correct Option:c) <button>

Question62: START

Which CSS property is used to change text color?

Question62: END

Option:a) color
Option:b) font-color
Option:c) text-color
Option:d) foreground-color

Correct Option:a) color

Question63: START

Which CSS3 property adds a shadow behind text?

Question63: END

Option:a) box-shadow
Option:b) text-shadow
Option:c) font-shadow
Option:d) content-shadow

Correct Option: b) text-shadow

Question64: START

Which of these is not a valid CSS unit?

Question64: END

Option:a) px
Option:b) em
Option:c) pt
Option:d) kp

Correct Option:d) kp

Question65: START

Which CSS3 property allows an element to rotate, scale, or skew?

Question65: END

Option:a) transition
Option:b) transform
Option:c) animation
Option:d) rotate

Correct Option: b) transform

Question66: START

What is the default position of an HTML element?

Question66: END

Option:a) relative

Option:b) absolute

Option:c) fixed

Option:d) static

Correct Option:d) static

Question67: START

Which property adds animation to an element?

Question67: END

Option:a) animation

Option:b) transform

Option:c) transition

Option:d) keyframe

Correct Option: a) animation

Question68: START

Which of these properties controls the order of overlapping elements?

Question68: END

Option:a) z-index

Option:b) order

Option:c) stacking

Option:d) layer

Correct Option: a) z-index

Question69: START

What is the function of @keyframes in CSS3?

Question69: END

Option:a) Defines media queries

Option:b) Defines font faces

Option:c) Defines animations

Option:d) Defines layouts

Correct Option: c) Defines animations

Question70: START

Which CSS property changes the size of the text?

Question70: END

Option:a) text-size

Option:b) font-size

Option:c) font-weight

Option:d) text-style

Correct Option: b) font-size

Question71: START

Which CSS property applies a gradient background?

Question71: END

Option:a) background-gradient

Option:b) color-gradient

Option:c) gradient

Option:d) background

Correct Option: d) background

Question72: START

What will be displayed when this code runs?

Question72:END

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
  <style>
```

```
    .box {
```

```
      width: 100px;
```

```
      height: 100px;
```

```
      background-color: red;
```

```
      margin: 20px;
```

```
      border: 5px solid blue;
```

```
      box-sizing: border-box;
```

```
    }
```

```
  </style>
```

```
</head>
```

```
<body>
```

```
  <div class="box"></div>
```

```
</body>
```

```
</html>
```

Option:a) A red box of 100px by 100px with a blue border

Option:b) A red box of 110px by 110px with a blue border

Option:c) A red box of 90px by 90px with a blue border

Option:d) No box will be displayed

Correct Option:a) A red box of 100px by 100px with a blue border

Question73: START

What happens when you click the button below?

Question73: END

```
<button onclick="document.getElementById('text').style.color='blue'">Click Me</button>
```

```
<p id="text">Hello World!</p>
```

Option:a) The text color changes to blue.

Option:b) Nothing happens.

Option:c) The button disappears.

Option:d) The text color changes to red.

Correct Option:a) The text color changes to blue.

Question74: START

What is the outcome of the following code?

Question74: END

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
  <style>
```

```
    .flex-container {
```

```
      display: flex;
```

```
      justify-content: center;
```

```
      align-items: center;
```

```
      height: 200px;
```

```
      background-color: lightgrey;
```

```
    }
```

```
  </style>
```

```
</head>
```

```
<body>
```

```
  <div class="flex-container">
```

```
    <div>Centered Content</div>
```

```
  </div>
```

```
</body>
```

```
</html>
```


Option:a) Content aligned to the left

Option:b) Content aligned to the top

Option:c) Content centered both vertically and horizontally

Option:d) Content aligned to the bottom

Correct Option:c) Content centered both vertically and horizontally

Question75: START

What will the following snippet display?

Question75: END

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
  <style>
```

```
    div {
```

```
      width: 150px;
```

```
      height: 150px;
```

```
      background-color: orange;
```

```
      transform: rotate(45deg);
```

```
    }
```

```
  </style>
```

```
</head>
```

```
<body>
```

```
  <div></div>
```

```
</body>
```

```
</html>
```

Option:a) An orange square tilted by 45 degrees

Option:b) A rotated rectangle

Option:c) A circle

Option:d) No shape will be displayed

Correct Option:a) An orange square tilted by 45 degrees

Question76: START

What will be the text color of the paragraph?

Question76: END

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
  <style>
```

```
    p {
```

```
      color: blue;
```

```
    }
```

```

        .red {
            color: red;
        }
        #green {
            color: green;
        }
    </style>
</head>
<body>
    <p class="red" id="green">Hello!</p>
</body>
</html>

```

Option:a) Blue

Option:b) Red

Option:c) Green

Option:d) Black

Correct Option: c) Green

Question77: START

What happens when you hover over the box?

Question77: END

```

<!DOCTYPE html>
<html>
<head>
    <style>
        .hover-box {
            width: 100px;
            height: 100px;
            background-color: pink;
            transition: background-color 2s ease;
        }
        .hover-box:hover {
            background-color: purple;
        }
    </style>
</head>
<body>
    <div class="hover-box"></div>
</body>
</html>

```

Option:a) The box stays pink

Option:b) The box turns purple immediately

Option:c) The box slowly changes to purple

Option:d) The box disappears

Correct Option:c) The box slowly changes to purple

Question78: START

What will be the final color of the text?

Question78: END

```
<!DOCTYPE html>
<html>
<head>
  <style>
    p {
      color: black;
    }
    .blue {
      color: blue !important;
    }
    .red {
      color: red;
    }
  </style>
</head>
<body>
  <p class="blue red">Hello CSS!</p>
</body>
</html>
```

Option:a) Black

Option:b) Blue

Option:c) Red

Option:d) No color displayed

Correct Option: b) Blue

Question79: START

What will the following code display?

Question79: END

```
<!DOCTYPE html>
<html>
<head>
  <style>
    div {
      width: 100px;
      height: 100px;
      background-color: lightblue;
      border: 5px solid black;
      margin: 20px;
      padding: 10px;
    }
  </style>
```

```
</head>
<body>
  <div></div>
</body>
</html>
```

Option:a) 100px box with border and padding excluded

Option:b) 130px box with border and padding included

Option:c) 150px box with margin included

Option:d) 100px box without border

Correct Option: b) 130px box with border and padding included

Question80: START

What happens when the following code runs?

Question80: END

```
<!DOCTYPE html>
<html>
<head>
  <style>
    .parent {
      display: grid;
      grid-template-columns: 1fr 2fr;
      gap: 10px;
    }
    .child {
      background-color: lightcoral;
      text-align: center;
      padding: 10px;
      border: 1px solid black;
    }
  </style>
</head>
<body>
  <div class="parent">
    <div class="child">1</div>
    <div class="child">2</div>
  </div>
</body>
</html>
```

Option:a) Two boxes of equal width

Option:b) Two boxes, second one twice as wide

Option:c) Two boxes with no space between them

Option:d) A single box displayed

Correct Option: b) Two boxes, second one twice as wide

Question81: START

What will be the font size of the paragraph?

Question81: END

```
<!DOCTYPE html>
<html>
<head>
  <style>
    .outer {
      font-size: 20px;
    }
    .inner {
      font-size: 2em;
    }
  </style>
</head>
<body>
  <div class="outer">
    <p class="inner">Hello World!</p>
  </div>
</body>
</html>
```

Option:a) 20px

Option:b) 30px

Option:c) 40px

Option:d) 10px

Correct Option: c) 40px

Question82: START

What will be the output of the following code?

Question82: END

```
<!DOCTYPE html>
<html>
<head>
  <style>
    p {
      font-size: 16px;
      line-height: 1.5;
    }
  </style>
</head>
<body>
  <p>This is a paragraph with line-height applied.</p>
```

</body>

</html>

Option:a) The text will have a line height of 1.5px.

Option:b) The text will have a line height of 1.5 times the font size.

Option:c) The text will have no line height.

Option:d) The text will be displayed in a large font size.

Correct Option: b) The text will have a line height of 1.5 times the font size.

Question83: START

What will the following CSS code achieve?

Question83: END

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
  <style>
```

```
    div {
```

```
      width: 200px;
```

```
      height: 200px;
```

```
      background-color: yellow;
```

```
      border-radius: 50%;
```

```
    }
```

```
  </style>
```

```
</head>
```

```
<body>
```

```
  <div></div>
```

```
</body>
```

```
</html>
```

Option:a) A square with a yellow background

Option:b) A rectangle with rounded corners

Option:c) A circle with a yellow background

Option:d) A triangle with a yellow background

Correct Option: c) A circle with a yellow background

Question84: START

What does this CSS rule do?

Question84: END

```
p {
```

```
  text-align: justify;
```

```
}
```

Option:a) It aligns the text to the left.

Option:b) It aligns the text to the center.

Option:c) It justifies the text, spreading it to both the left and right margins.

Option:d) It aligns the text to the right.

Correct Option:c) It justifies the text, spreading it to both the left and right margins.

Question85: START

What happens when you click the button below?

Question85: END

`<button onclick="document.body.style.backgroundColor='lightblue'">Click Me</button>`

Option:a) The text color changes to blue.

Option:b) The background color of the page turns light blue.

Option:c) A new page opens.

Option:d) Nothing happens.

Correct Option: b) The background color of the page turns light blue.

Question86: START

What will be the output of this CSS?

Question86: END

```
div {  
  
    background-color: green;  
    color: white;  
    padding: 20px;  
    font-size: 18px;  
}
```

Option:a) A green box with white text and 20px padding.

Option:b) A green text with a 20px font size.

Option:c) A green box with black text.

Option:d) A white box with black text.

Correct Option: a) A green box with white text and 20px padding.

Question87: START

What is the effect of this CSS rule?

Question87: END

```
p {  
    font-family: "Arial", sans-serif;  
}
```

Option:a) The text will be displayed in the Arial font or any available sans-serif font.

Option:b) The text will be displayed in the Times New Roman font.

Option:c) The text will be italicized.

Option:d) The text will be displayed in the default font.

Correct Option:a) The text will be displayed in the Arial font or any available sans-serif font.

Question88: START

What is the result of applying this style to the <h1> tag?

Question88: END

```
h1 {  
  
    font-size: 30px;  
    color: red;  
    text-align: center;  
}
```

Option:a) The text will be 30px in size, red in color, and centered.

Option:b) The text will be centered but with no color applied.

Option:c) The text will be red with no size adjustment.

Option:d) The text will be small and left-aligned.

Correct Option: a) The text will be 30px in size, red in color, and centered.

Question89: START

What will happen when you hover over the box?

Question89: END

```
<!DOCTYPE html>  
<html>  
<head>  
    <style>  
        div {  
            width: 100px;  
            height: 100px;  
            background-color: blue;  
            transition: background-color 0.5s ease;  
        }  
        div:hover {  
            background-color: yellow;  
        }  
    </style>  
</head>  
<body>  
    <div></div>  
</body>  
</html>
```

Option:a) The background color will immediately change to yellow.

Option:b) The background color will change to yellow over 0.5 seconds.

Option:c) The background color will not change.

Option:d) The background color will change to red.

Correct Option: b) The background color will change to yellow over 0.5 seconds.

Question90: START

What is the function of the z-index property in CSS?

Question90: END

Options:

Option:a) It controls the width of an element.

Option:b) It controls the stacking order of elements.

Option:c) It controls the font size.

Option:d) It controls the alignment of text.

Correct Option:b) It controls the stacking order of elements.

Question91: START

Which of the following properties can be used to change the spacing between lines of text in CSS?

Question91: END

Option:a) letter-spacing

Option:b) text-align

Option:c) line-height

Option:d) font-family

Correct Option: c) line-height

Question92: START

What is the effect of this CSS?

Question92: END

```
a {  
    text-decoration: underline;  
    color: red;  
}
```

Option:a) The links will be underlined and red.

Option:b) The links will be bold.

Option:c) The links will have no style.

Option:d) The links will have a background color.

Correct Option: a) The links will be underlined and red.

Question93: START

What will be the result of this HTML and CSS?

Question93: END

```
<!DOCTYPE html>
<html>
<head>
  <style>
    div {
      width: 200px;
      height: 100px;
      background-color: pink;
      overflow: hidden;
    }
  </style>
</head>
<body>
  <div>
    This is a long text that will be clipped when the content overflows.
  </div>
</body>
</html>
```

Option:a) The text will overflow outside the box.

Option:b) The text will be clipped and hidden.

Option:c) The text will be displayed in a smaller font.

Option:d) No text will be displayed.

Correct Option: b) The text will be clipped and hidden.

Question94: START

Which of the following is used to create a comment in CSS?

Question94: END

Option:a) // This is a comment

Option:b) /* This is a comment */

Option:c) <!-- This is a comment -->

Option:d) # This is a comment

Correct Option: b) /* This is a comment */

Question95: START

Which of the following CSS properties can be used to create a shadow effect for text?

Question95: END

- Option:**a) text-shadow
Option:b) box-shadow
Option:c) shadow-text
Option:d) background-shadow

Correct Option: a) text-shadow

Question96: START

What will this CSS rule do?

Question96: END

```
{  
  margin-top: 50px;  
  margin-bottom: 20px;  
}
```

- Option:**a) It adds 50px margin at the top and 20px margin at the bottom of the paragraph.
Option:b) It adds 50px padding at the top and 20px padding at the bottom.
Option:c) It aligns the text to the top.
Option:d) It changes the font size of the paragraph.

Correct Option:a) It adds 50px margin at the top and 20px margin at the bottom of the paragraph.

Question97: START

What will be the result of the following CSS code?

Question97: END

```
div {  
  
  width: 200px;  
  
  height: 200px;  
  
  background-color: green;  
  
  box-shadow: 10px 10px 15px gray;  
  
}
```

- Option:**a) A green box with a 10px shadow to the top-left.
Option:b) A green box with a 10px shadow to the bottom-right.
Option:c) A green box with no shadow.
Option:d) A green box with a 15px shadow around it.

Correct Option: b) A green box with a 10px shadow to the bottom-right.

Question98: START

What is the purpose of the @media rule in CSS?

Question98: END

Option:a) It is used to define a style for printing documents.

Option:b) It is used to apply styles only to certain media types (like screen or print).

Option:c) It is used to create animations.

Option:d) It is used to apply styles to specific browsers.

Correct Option:b) It is used to apply styles only to certain media types (like screen or print).

Question99: START

What is the expected result of the following HTML and CSS code?

Question99: END

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
  <style>
```

```
    div {
```

```
      display: flex;
```

```
      justify-content: center;
```

```
      align-items: center;
```

```
      height: 100px;
```

```
      background-color: lightblue;
```

```
    }
```

```
  </style>
```

```
</head>
```

```
<body>
```

```
  <div>
```

```
<p>Hello World</p>
</div>
</body>
</html>
```

- Option:**a) The paragraph will be aligned at the top-left of the div.
Option:b) The paragraph will be aligned at the bottom-right of the div.
Option:c) The paragraph will be centered both vertically and horizontally.
Option:d) The paragraph will not be displayed.

Correct Option:c) The paragraph will be centered both vertically and horizontally.

Question100: START

What does the following CSS rule do?

Question100: END

```
img {
    max-width: 100%;
    height: auto;
}
```

- Option:**a) The image will have a fixed width and height.
Option:b) The image will maintain its aspect ratio and scale down to fit within the container.
Option:c) The image will have a fixed width but no height.
Option:d) The image will be stretched to fit the container.

Correct Option: b) The image will maintain its aspect ratio and scale down to fit within the container.

UNIT II -CLIENT SIDE PROGRAMMING

Question1: START

What will the following code print when you click the button?

```
<!DOCTYPE html>

<html>

<body>

  <button id="testBtn">Click Me</button>

  <p id="message">Original Text</p>

  <script>

    document.getElementById('testBtn').addEventListener('click', () => {

      let msg = document.getElementById('message');

      msg.textContent = "Updated Text!";

      console.log(msg.textContent);

    });

  </script>

</body>

</html>
```

Question1: END

Option : a) "Original Text"

Option : b) "Updated Text!"

Option : c) "undefined"

Option : d) Error

Correct Option: **b) "Updated Text!"**

Question2: START

What is the result of the following code?

```
let date = new Date('2024-02-29');

date.setFullYear(2025);
```

```
console.log(date.toDateString());
```

Question2: END

Option : a) "Thu Feb 29 2025"

Option : b) "Sat Mar 01 2025"

Option : c) Error

Option : d) "Fri Feb 28 2025"

Correct Option: **b) "Sat Mar 01 2025"**

Question3: START

What will be logged by the following code?

```
let pattern = /\d{3}-\d{2}-\d{4}/;
```

```
let str = "My number is 123-45-6789";
```

```
console.log(pattern.test(str));
```

Question3: END

Option : a) true

Option : b) false

Option : c) undefined

Option : d) Error

Correct Option: **a) true**

Question4: START

What is the output?

```
try { let num = 5 / 0;
```

```
    if (!isFinite(num)) {
```

```
        throw new Error("Infinite result!");
```

```
    } } catch (e) {
```

```
        console.log(e.message);
```

```
}
```

Question4: END

Option : a) 0

Option : b) "Infinite result!"

Option : c) NaN

Option : d) Error

Correct Option: **b) "Infinite result!"**

Question5: START

What will this code print?

```
let email = "user@site.com";  
  
let pattern = /^[\\w.%+-]+@[a-zA-Z.-]+\\.[a-zA-Z]{2,}$/;  
  
console.log(pattern.test(email));
```

Question5: END

Option : a) true
Option : b) false
Option : c) undefined
Option : d) Error
Correct Option: **a) true**

Question6: START

What is the output of this code?

```
let colors = ['red', 'green', 'blue'];  
  
colors.splice(1, 1, 'yellow');  
  
console.log(colors);
```

Question6: END

Option : a) ['red', 'yellow', 'blue']
Option : b) ['red', 'green', 'blue']
Option : c) ['yellow', 'green', 'blue']
Option : d) Error
Correct Option: **a) ['red', 'yellow', 'blue']**

Question7: START

What happens when you click the button twice?

Question7: END

Option : a) 1
Option : b) 2
Option : c) Error
Option : d) undefined
Correct Option: **b) 2**

Question8: START

What will this code do?

```
let xhr = new XMLHttpRequest();
```



```
xhr.open('GET', 'https://jsonplaceholder.typicode.com/posts/1', true);  
xhr.onload = () => {  
  if (xhr.status === 200) {  
    let response = JSON.parse(xhr.responseText);  
    console.log(response.title);  
  }  
};  
xhr.send();
```

Question8: END

Option : a) Logs post title

Option : b) Error

Option : c) Undefined

Option : d) Nothing

Correct Option: **a) Logs post title**

Question9: START

What is the output?

```
let obj = {name: "John", age: 30};
```

```
let jsonStr = JSON.stringify(obj);
```

```
let newObj = JSON.parse(jsonStr);
```

```
console.log(newObj.name);
```

Question9: END

Option : a) undefined

Option : b) John

Option : c) Error

Option : d) null

Correct Option: **b) John**

Question10: START

What does this code print?

```
let text = "JavaScript is awesome!";
```

```
console.log(text.indexOf("is"));
```

```
console.log(text.includes("awesome"));
```

Question10: END

Option : a) 11, true

Option : b) 10, true

Option : c) 11, false

Option : d) 10, false

Correct Option: **a) 11, true**

Question11: START

Which object in JavaScript is used to store the current date and time?

Question11: END

Option : a) Date

Option : b) Time

Option : c) Clock

Option : d) Now

Correct Option: **a) Date**

Question12: START

How do you get the current day of the week in JavaScript?

Question12: END

Option : a) `var day = new Date().getDay();`

Option : b) `var day = new Date().getCurrentDay();`

Option : c) `var day = new Date().day();`

Option : d) `var day = Date().getDay();`

Correct Option: **a) `var day = new Date().getDay();`**

Question13: START

Which method in JavaScript is used to match a regular expression with a string?

Question13: END

Option : a) `match()`

Option : b) `test()`

Option : c) `regex()`

Option : d) `find()`

Correct Option: **a) `match()`**

Question14: START

What does the regular expression `/\d/` match in JavaScript?

Question14: END

Option : a) Any digit

Option : b) Any alphabet

Option : c) Any non-digit character

Option : d) Any special character

Correct Option: **a) Any digit**

Question15: START

Which of the following is used for exception handling in JavaScript?

Question15: END

Option : a) try and catch

Option : b) throw

Option : c) finally

Option : d) All of the above

Correct Option: **d) All of the above**

Question16: START

What will happen if an exception is thrown and not caught?

Question16: END

Option : a) The program will continue running without issues.

Option : b) The program will stop execution.

Option : c) The program will execute the catch block.

Option : d) The exception will be logged but not thrown.

Correct Option: **b) The program will stop execution.**

Question17: START

Which of the following is a correct way to validate a form input in JavaScript?

Question17: END

Option : a) document.getElementById("input").validate();

Option : b) input.validateForm();

Option : c) if(input.value == "") { alert("Input cannot be empty"); }

Option : d) form.submitValidation();

Correct Option: **c) if(input.value == "") { alert("Input cannot be empty"); }**

Question18: START

Which of the following is a built-in object in JavaScript?

Question18: END

Option : a) Object

Option : b) Date

Option : c) Array

Option : d) All of the above

Correct Option: **d) All of the above**

Question19: START

Which built-in object in JavaScript is used for mathematical operations?

Question19: END

Option : a) Math
Option : b) Num
Option : c) Mathematics
Option : d) Numbers
Correct Option: **a) Math**

Question20: START

How do you create a new array in JavaScript?

Question20: END

Option : a) var arr = new Array();
Option : b) var arr = []
Option : c) var arr = new List();
Option : d) Both a and b
Correct Option: **d) Both a and b**

Question21: START

Which method is used to attach an event handler to an element in JavaScript?

Question21: END

Option : a) addEvent()
Option : b) addListener()
Option : c) addEventListener()
Option : d) attachEvent()
Correct Option: **c) addEventListener()**

Question22: START

What will the following code do?

```
document.getElementById("myButton").addEventListener("click", function() {  
  
    alert("Button clicked!");  
  
});
```

Question22: END

Option : a) It will display a button on the webpage.
Option : b) It will trigger an alert when the button is clicked.
Option : c) It will submit a form when the button is clicked.
Option : d) It will change the background color when the button is clicked.
Correct Option: **b) It will trigger an alert when the button is clicked.**

Question23: START

What is DHTML in JavaScript?

Question23: END

Option : a) HTML with styling features
Option : b) HTML combined with dynamic scripting
Option : c) HTML with CSS only
Option : d) JavaScript with HTML tags
Correct Option: **b) HTML combined with dynamic scripting**

Question24: START

What does AJAX stand for?

Question24: END

Option : a) Asynchronous JavaScript and XML
Option : b) Asynchronous Java and XML
Option : c) Asynchronous JavaScript and XHTML
Option : d) Asynchronous XML and JSON
Correct Option: **a) Asynchronous JavaScript and XML**

Question25: START

Which object is used to send asynchronous requests in AJAX?

Question25: END

Option : a) XMLHttpRequest
Option : b) Request
Option : c) AJAXRequest
Option : d) HttpRequest
Correct Option: **a) XMLHttpRequest**

Question26: START

Which object is used to send asynchronous requests in AJAX?

Question26: END

Option:a) It specifies the type of response data.
Option:b) It specifies the response status.
Option:c) It handles state changes during the request.
Option:d) It sends the request to the server.
Correct Option: c) It handles state changes during the request.

Question27: START

Which method is used to send data to the server in AJAX?

Question27: END

Options:

a) sendData()
b) postData()
c) send()
d) sendRequest()
Correct Option: c) send()

Question28: START

Which of the following is a valid JSON string?

Question28: END

Option:a) {name: "John", age: 30}

Option:b) {"name": "John", "age": 30}

Option:c) ["name": "John", "age": 30]

Option:d) ("name": "John", "age": 30)

Correct Option: b) {"name": "John", "age": 30}

Question29: START

What is the purpose of the JSON.parse() method in JavaScript?

Question29: END

Option:a) It converts a JSON string into a JavaScript object.

Option:b) It converts a JavaScript object into a JSON string.

Option:c) It parses a JavaScript function.

Option:d) It checks if a string is valid JSON.

Correct Option: a) It converts a JSON string into a JavaScript object.

Question30: START

What is the purpose of the JSON.stringify() method in JavaScript?

Question30: END

Option:a) It converts a JSON string into a JavaScript object.

Option:b) It converts a JavaScript object into a JSON string.

Option:c) It parses a JavaScript object.

Option:d) It checks if a string is valid JSON.

Correct Option: b) It converts a JavaScript object into a JSON string.

Question31: START

What will be the output of the following JavaScript code?

```
document.getElementById("demo").innerHTML = "Hello World!";
```

Question31: END

Option:a) It will display "Hello World!" in an alert box.

Option:b) It will change the text inside an HTML element with the ID demo to "Hello World!".

Option:c) It will replace the entire HTML content of the page with "Hello World!".

Option:d) It will print "Hello World!" to the console.

Correct Option: b) It will change the text inside an HTML element with the ID demo to "Hello World!".

Question32: START

What will happen if the following code is executed in the browser?

```
<button id="btn">Click me!</button>
```

```
<script>
```

```
document.getElementById("btn").addEventListener("click", function() {
```

```
    alert("Button clicked!");  
  });  
</script>
```

Question32: END

- Option:**a) The page will reload when the button is clicked.
Option:b) An alert will be shown when the button is clicked.
Option:c) Nothing will happen when the button is clicked.
Option:d) A new button will appear when clicked.

Correct Option: b) An alert will be shown when the button is clicked.

Question33: START

What will be the output of the following JavaScript code?

```
console.log(typeof null);
```

Question33: END

- Option:**a) null
Option:b) object
Option:c) undefined
Option:d) function

Correct Option: b) object

Question34: START

What is the value of the following JavaScript code?

```
var x = 10;
```

```
var y = "10";
```

```
console.log(x == y);
```

Question34: END

- Option:**a) true
Option:b) false
Option:c) undefined
Option:d) error

Correct Option: a) true

Question35: START

What will be the result of the following JavaScript code?

```
var a = 10;  
  
var b = 5;  
  
console.log(a + b + "5");
```

Question35: END

- Option:**a) 15
Option:b) 105
Option:c) 55
Option:d) Error

Correct Option: c) 55

Question36: START

What will be the output of the following AJAX code?

```
var xhr = new XMLHttpRequest();  
  
xhr.open("GET", "data.json", true);  
  
xhr.onreadystatechange = function() {  
  
    if (xhr.readyState == 4 && xhr.status == 200) {  
  
        console.log(xhr.responseText);  
  
    }  
  
};  
  
xhr.send();
```

Question36: END

- Option:**a) It will make an HTTP GET request to the server and print the response from data.json in the console.
Option:b) It will print an error message in the console.
Option:c) It will send the response to a specific element in the HTML.
Option:d) The code will fail to execute because of missing server-side functionality.

Correct Option: a) It will make an HTTP GET request to the server and print the response from data.json in the console.

Question37: START

What is the purpose of the **xhr.onreadystatechange** method in AJAX?

Question37: END

Option:a) It specifies the type of request (GET/POST).

Option:b) It sets the request headers.

Option:c) It defines the function that is triggered when the readyState changes.

Option:d) It opens the HTTP connection.

Correct Option: c) It defines the function that is triggered when the readyState changes.

Question38: START

Which method is used to send data to the server in AJAX?

Question38: END

Option:a) xhr.send()

Option:b) xhr.open()

Option:c) xhr.request()

Option:d) xhr.submit()

Correct Option: a) xhr.send()

Question39: START

What is the output of the following code?

```
var xhr = new XMLHttpRequest();

xhr.open("GET", "data.json", true);

xhr.onload = function() {

    var data = JSON.parse(xhr.responseText);

    console.log(data.name);

};

xhr.send();
```

Question39: END

Option:a) It will print data.name to the console.

Option:b) It will print an error because **xhr.responseText** is not a valid JSON.

Option:c) It will print undefined if name does not exist in the response.

Option:d) It will display data.name in an alert box.

Correct Option: a) It will print data.name to the console.

Question40: START

What will be the output of the following code?

```
var jsonString = '{"name": "John", "age": 30}';  
  
var obj = JSON.parse(jsonString);  
  
console.log(obj.name);
```

Question40: END

Option:a) "John"

Option:b) undefined

Option:c) "name"

Option:d) null

Correct Option: a) "John"

Question41: START

What will be the output of the following code?

```
var obj = { name: "John", age: 30 };  
  
var jsonString = JSON.stringify(obj);  
  
console.log(jsonString);
```

Question41: END

Option:a) {"name": "John", "age": 30}

Option:b) {"name": "John"}

Option:c) {"John": 30}

Option:d) undefined

Correct Option: a) {"name": "John", "age": 30}

Question42: START

What does the `JSON.parse()` method do in JavaScript?

Question42: END

Option:a) Converts a JavaScript object into a JSON string.

Option:b) Converts a JSON string into a JavaScript object.

Option:c) Validates the structure of a JSON string.

Option:d) Parses a JSON object to get the key-value pairs.

Correct Option: b) Converts a JSON string into a JavaScript object.

Question43: START

What will be the output of the following JavaScript code?

```
let x = [1, 2, 3];
```

```
let y = x;y[0] = 100;
```

```
console.log(x[0]);
```

Question43: END

Option:a) 1

Option:b) 2

Option:c) 100

Option:d) undefined

Correct Option: c) 100

Question44: START

Which of the following methods is used to attach an event handler to a DOM element in JavaScript?

Question44: END

Option:a) addEventListener()

Option:b) attachEvent()

Option:c) onEvent()

Option:d) addHandler()

Correct Option: a) addEventListener()

Question45: START

What is the output of the following JavaScript code?

```
var obj = { name: "Alice", age: 25 };
```

```
var str = Object.keys(obj);
```

```
console.log(str);
```

Question45: END

Option:a) ["Alice", "25"]

Option:b) ["name", "age"]

Option:c) ["Alice", "age"]

Option:d) undefined

Correct Option: b) ["name", "age"]

Question46: START

Which method is used to remove a DOM element from the document in JavaScript?

Question46: END

Option:a) removeElement()

Option:b) removeChild()

Option:c) deleteElement()

Option:d) detachChild()

Correct Option: b) removeChild()

Question47: START

What will be the result of the following code?

```
var num = "50";
```

```
console.log(num - 10);
```

Question47: END

Option:a) 50

Option:b) 40

Option:c) "40"

Option:d) NaN

Correct Option: b) 40

Question48: START

What is the purpose of the `xhr.open()` method in AJAX?

Question48: END

Option:a) To send data to the server.

Option:b) To define the type of HTTP request (GET/POST).

Option:c) To parse the server response.

Option:d) To open the HTTP connection.

Correct Option: b) To define the type of HTTP request (GET/POST).

Question49: START

What will be the output of the following AJAX code?

```
var xhr = new XMLHttpRequest();
```

```
xhr.open("GET", "data.json", false);
```

```
xhr.send();
```

```
console.log(xhr.responseText);
```

Question49: END

Option:a) It will print the response of data.json.

Option:b) It will throw an error due to a synchronous request.

Option:c) It will print undefined.

Option:d) It will print an empty string.

Correct Option: a) It will print the response of data.json.

Question50: START

Which method is used to get the status code of the HTTP response in AJAX?

Question50: END

Option:a) xhr.statusCode()

Option:b) xhr.status()

Option:c) xhr.getStatus()

Option:d) xhr.status

Correct Option: d) xhr.status

Question51: START

What does xhr.onreadystatechange trigger in an AJAX request?

Question51: END

Option:a) It triggers when the readyState property of the request changes.

Option:b) It triggers when the server returns a response.

Option:c) It triggers when the status of the request changes.

Option:d) It triggers when the request is sent.

Correct Option: a) It triggers when the readyState property of the request changes.

Question52: START

What is the purpose of xhr.setRequestHeader() in AJAX?

Question52: END

Option:a) It sets the request method (GET/POST).

Option:b) It sets the request parameters.

Option:c) It sets custom headers to be sent with the request.

Option:d) It sets the server URL.

Correct Option: c) It sets custom headers to be sent with the request.

Question53: START

What will be the output of the following code?

```
var obj = { name: "John", age: 25 };
```

```
var jsonString = JSON.stringify(obj);
```

```
console.log(jsonString);
```

Question53: END

Option:a) { name: "John", age: 25 }

Option:b) ["name", "John", "age", 25]

Option:c) {"name": "John", "age": 25}

Option:d) undefined

Correct Option: c) {"name": "John", "age": 25}

Question54: START

What is the output of the following code?

```
var jsonString = '{"name": "Alice", "age": 30}';
```

```
var obj = JSON.parse(jsonString);
```

```
console.log(obj.age);
```

Question54: END

Option:a) 30

Option:b) "30"

Option:c) undefined

Option:d) null

Correct Option: a) 30

Question55: START

Which of the following JSON objects is valid?

Question55: END

Option:a) {name: "John", age: 25}

Option:b) {"name": "John", age: 25}

Option:c) {"name": "John", "age": 25}

Option:d) {"name": John, "age": 25}

Correct Option: c) {"name": "John", "age": 25}

Question56: START

What is the output of the following code?

```
document.body.innerHTML = "<button id='btn'>Click me</button>";
```

```
document.getElementById('btn').addEventListener('click', function() {
```

```
    alert(this.textContent);});
```

Question56: END

Options:

Option:a) Click me

Option:b) Undefined

Option:c) Error

Option:d) Button text

Correct Option: a) Click me

Question57: START

What happens when you run the following code?

```
let obj = { x: 10 };
```

```
Object.freeze(obj);
```

```
obj.x = 20;
```

```
console.log(obj.x);
```

Question57: END

Options:

Option:a) 20

Option:b) 10

Option:c) Error

Option:d) Undefined

Correct Option: b) 10

Question58: START

What is printed by this code?

```
let arr = [1, 2, 3];
```

```
arr.forEach((num, index) => {
```

```
    arr[index] = num * 2;
```

```
});
```

```
console.log(arr);
```

Question58: END

Option:a) [1, 2, 3]

Option:b) [2, 4, 6]

Option:c) [2, 3, 4]

Option:d) Error

Correct Option: b) [2, 4, 6]

Question59: START

What will be logged?

```
let x = "5";
```

```
let y = 2;
```

```
console.log(x + y) ;
```

Question59: END

Options:

Option:a) 7

Option:b) 52

Option:c) Error

Option:d) 5+2

Correct Option: b) 52

Question60: START

Identify the result:

```
Let str = "Hello World";
```

```
console.log(str.slice(6));
```

Question60: END

Option:a) Hello

Option:b) World

Option:c) Hello World

Option:d) Error

Correct Option: b) World

Question61: START

What happens here?

```
try {
```



```
        throw "Error occurred";
    } catch (err) {
        console.log(err);
    }
}
```

Question61: END

Option:a) Error occurred

Option:b) undefined

Option:c) Syntax error

Option:d) Nothing

Correct Option: a) Error occurred

Question62: START

What will this code produce?

```
try {
    JSON.parse("{name: 'John'}");
} catch (error) {
    console.log("Invalid JSON");
}
```

Question62: END

Option:a) {name: 'John'}

Option:b) Invalid JSON

Option:c) Error

Option:d) undefined

Correct Option: b) Invalid JSON

Question63: START

What is the output?

```
try {
    let x = 5;
    x();
} catch (err) {
```

```
    console.log(typeof err);  
}
```

Question63: END

Option:a) number

Option:b) function

Option:c) object

Option:d) string

Correct Option: c) object

Question64: START

What will this code do?

```
try {  
    let result = 5 / 0;  
    console.log(result);  
} catch (err) {  
    console.log("Error");  
}
```

Question64: END

Option:a) Infinity

Option:b) Error

Option:c) 0

Option:d) undefined

Correct Option: a) Infinity

Question65: START

Predict the behavior:

```
try {  
    throw new Error("Something went wrong");  
} catch (error) {  
    console.log(error.message);  
}
```

Question65: END

Option:a) undefined

Option:b) Something went wrong

Option:c) Error object

Option:d) SyntaxError

Correct Option: b) Something went wrong

Question66: START

What does this AJAX code do?

```
var xhr = new XMLHttpRequest();  
  
xhr.open("GET", "data.json", true);  
  
xhr.send();  
  
xhr.onreadystatechange = function () {  
  
    if (xhr.readyState === 4 && xhr.status === 200) {  
  
        console.log(xhr.responseText);  
  
    }  
  
};
```

Question66: END

Option:a) Fetches and logs JSON data if available.

Option:b) Throws an error.

Option:c) Sends data to the server.

Option:d) Returns undefined.

Correct Option: a) Fetches and logs JSON data if available.

Question67: START

What is the output?

```
ar xhr = new XMLHttpRequest();  
  
console.log(xhr.readyState);
```

Question67: END

Option:a) 0
Option:b) 1
Option:c) 4
Option:d) undefined

Correct Option: a) 0

Question68: START

Which property checks if the AJAX request was successful?

Question68: END

Option:a) xhr.readyState === 4
Option:b) xhr.status === 200
Option:c) Both a and b
Option:d) xhr.responseText !== ""

Correct Option: c) Both a and b

Question69: START

What is the purpose of xhr.open()?

Question69: END

Option:a) Open a file
Option:b) Open a database
Option:c) Open a connection to a URL
Option:d) Open a server

Correct Option: c) Open a connection to a URL

Question70: START

Which method sends a request to the server in AJAX?

Question70: END

Option:a) sendRequest()
Option:b) makeRequest()
Option:c) xhr.send()
Option:d) connect()

Correct Option: c) xhr.send()

Question71: START

What is the output?

```
let obj = { name: "John", age: 30 };  
  
let json = JSON.stringify(obj);  
  
console.log(typeof json);
```

Question71: END

Option:a) object

Option:b) string

Option:c) number

Option:d) undefined

Correct Option: b) string

Question72: START

What does JSON.parse() do?

Question72: END

Option:a) Converts a string to JSON

Option:b) Converts an object to JSON

Option:c) Parses a number

Option:d) None

Correct Option: a) Converts a string to JSON

Question73: START

What is the result?

```
let json = '{"name": "Alice", "age": 25}';
```

```
let obj = JSON.parse(json);
```

```
console.log(obj.name);
```

Question73: END

Option:a) Alice

Option:b) "Alice"

Option:c) undefined

Option:d) Error

Correct Option: b) "Alice"

Question74: START

What is true about JSON keys?

Question74: END

Option:a) Can be unquoted

Option:b) Must be numbers

Option:c) Must be strings

Option:d) Can be booleans

Correct Option: c) Must be strings

Question75: START
What will be printed?

```
let count = 0;

document.body.addEventListener('click', () => {

    count++;

    console.log(count);

});
```

Question75: END

Option:a) 0
Option:b) Increments with each click
Option:c) 1 only
Option:d) Error

Correct Option: b) Increments with each click

Question76: START
What will the following print?

```
let arr = [1, 2, 3];

let newArr = arr.map(num => num * 2);

console.log(newArr);
```

Question76: END

Option:a) [1, 2, 3]
Option:b) [2, 4, 6]
Option:c) [3, 6, 9]
Option:d) Error

Correct Option: b) [2, 4, 6]

Question77: START
What does this code produce?

```
let x = 5;

x += "5";
```

console.log(x);

Question77: END

Option:a) 10

Option:b) 55

Option:c) "55"

Option:d) Error

Correct Option: c) "55"

Question78: START

What happens here?

Let obj = {};

console.log(obj.hasOwnProperty('toString'));

Question78: END

Option:a) true

Option:b) false

Option:c) undefined

Option:d) Error

Correct Option: a) true

Question79: START

What does the regex match?

let str = "abc123";

let pattern = /\d+/;

console.log(str.match(pattern));

Question79: END

Option:a) null

Option:b) 123

Option:c) abc

Option:d) Error

Correct Option: b) 123

Question80: START

What does this return?

let str = "hello world";

```
let regex = /^hello/;  
  
console.log(regex.test(str));
```

Question80: END

Option:a) true
Option:b) false
Option:c) Error
Option:d) undefined

Correct Option: a) true

Question81: START
What does this regex find?

```
let text = "abc1def2ghi3";  
  
let result = text.match(/\d/g);  
  
console.log(result);
```

Question81: END
Option:a) ["1", "2", "3"]
Option:b) ["abc", "def", "ghi"]
Option:c) ["123"]
Option:d) null
Correct Option: a) ["1", "2", "3"]

Question82: START
What will be printed?

```
let regex = /\w{4}/;  
  
console.log("JavaScript".match(regex));
```

Question82: END
Option:a) ["Java"]
Option:b) ["Script"]
Option:c) null
Option:d) Error
Correct Option: a) ["Java"]

Question83: START**What does this expression match?**

```
let pattern = /\s+;/;

console.log("Hello World".match(pattern));
```

Question83: END

Option:a) [" "]

Option:b) ["World"]

Option:c) ["Hello"]

Option:d) null

Correct Option: a) [" "]**Question84: START****What is printed here?**

```
try {

    let x = y + 1;

} catch (error) {

    console.log(error.name);

}
```

Question84: END**Option:a)** SyntaxError**Option:b)** ReferenceError**Option:c)** TypeError**Option:d)** Error**Correct Option: b) ReferenceError**

Question85: START**Identify the output:**

```
try {

    throw new Error("Oops!");

} catch (error) {

    console.log(error.message);

}
```

Question85: END

Option:a) undefined

Option:b) Oops!

Option:c) Error

Option:d) null

Correct Option: b) Oops!

Question86: START

What will this display?

```
try {  
  
    JSON.parse("{name: 'John'}");  
  
} catch (error) {  
  
    console.log("Invalid JSON");  
  
}
```

Question86: END

Option:a) Invalid JSON

Option:b) SyntaxError

Option:c) Error

Option:d) undefined

Correct Option: a) Invalid JSON

Question87: START

What happens here?

```
try {  
  
    let num = 1 / 0;  
  
    console.log(num);  
  
} catch (error) {  
  
    console.log("Error");  
  
}
```

Question87: END

Option:a) Error

Option:b) 0

Option:c) Infinity

Option:d) undefined

Correct Option: c) Infinity

Question88: START

What is the output?

```
try {  
    throw "An error occurred";  
} catch (e) {  
    console.log(e);  
}
```

Question88: END

Option:a) Error

Option:b) An error occurred

Option:c) undefined

Option:d) null

Correct Option: b) An error occurred

Question89: START

What's the result?

```
let email = "user@example.com";  
  
let pattern = /^[\\w.%+-]+@[\\w.-]+\\. [a-zA-Z]{2,}$/;  
  
console.log(pattern.test(email));
```

Question89: END

Option:a) true

Option:b) false

Option:c) null

Option:d) Error

Correct Option: a) true

Question90: START

Will this validate a phone number?

```
let phone = "9876543210";  
  
let regex = /^\\d{10}$/;  
  
console.log(regex.test(phone));
```

Question90: END

Option:a) true

Option:b) false

Option:c) Error

Option:d) null

Correct Option: a) true

Question91: START

What will be printed when you click the button?

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
  <title>DOM Test</title>
```

```
</head>
```

```
<body>
```

```
  <button id="btn">Click Me</button>
```

```
  <div id="output"></div>
```

```
  <script>
```

```
    document.getElementById('btn').addEventListener('click', () => {
```

```
      let div = document.getElementById('output');
```

```
      div.innerHTML = "<p>Hello, DOM!</p>";
```

```
      let para = div.querySelector('p');
```

```
      para.style.color = 'blue';
```

```
      console.log(para.textContent);
```

```
    });
```

```
  </script>
```

```
</body>
```

```
</html>
```

Question91: END

Option:a) "undefined" in console; text in black

Option:b) "Hello, DOM!" in console; text in blue

Option:c) Error due to missing element

Option:d) "Hello, DOM!" in console; text in black

Correct Option: b) "Hello, DOM!" in console; text in blue

Question92: START

What is the result of this code?

```
let date1 = new Date(2023, 5, 20);  
  
let date2 = new Date('2023-06-20');  
  
console.log(date1.getDate() === date2.getDate());  
  
console.log(date1.getMonth() === date2.getMonth());  
  
console.log(date1.toString());  
  
console.log(date2.toString());
```

Question92: END

Options:

Option:a) true, true, different date strings

Option:b) false, true, same date strings

Option:c) true, true, same date strings

Option:d) false, false, different date strings

Correct Option: c) true, true, same date strings

Question93: START

What does this code print?

```
let text = "The rain in Spain falls mainly in the plain.";  
  
let regex = /\bin\b/g;  
  
let matches = text.match(regex);  
  
console.log(matches);  
  
console.log(matches.length);
```

Question93: END

Option:a) null, 0

Option:b) ["in", "in", "in"], 3

Option:c) ["in", "in"], 2

Option:d) Error

Correct Option: b) ["in", "in", "in"], 3

Question94: START

What will this JavaScript code output?

```
``javascript
```

```
let numbers = [1, 2, 3, 4, 5];
```

```
let result = numbers.map(n => n * 2).filter(n => n > 5);
```

```
console.log(result);
```

Question94: END

Option:a) [2, 4, 6, 8, 10]

Option:b) [6, 8, 10]

Option:c) [1, 2, 3, 4, 5]

Option:d) [12, 16, 20]

Correct Option: b) [6, 8, 10]

Question95: START

What is the output of the following code?

```
``javascript
```

```
let a = "5";
```

```
let b = 5;
```

```
console.log(a == b);
```

```
console.log(a === b);
```

Question95: END

Options:

Option:a) true, true

Option:b) false, false

Option:c) true, false

Option:d) false, true

Correct Option: c) true, false

Question96: START

What will be logged to the console?

```
let obj = { a: 1, b: 2 };
```

```
let clone = { ...obj, b: 3 };
```

```
console.log(clone);
```

Question96: END

Option:a) { a: 1, b: 2 }

Option:b) { a: 1, b: 3 }

Option:c) { b: 3 }

Option:d) { a: 1 }

Correct Option: b) { a: 1, b: 3 }

Question97: START

What is the result of this expression?

```
console.log(0.1 + 0.2 === 0.3);
```

Question97: END

Option:a) true

Option:b) false

Option:c) NaN

Option:d) undefined

Correct Option: b) false

Question98: START

What happens when this code runs?

```
let obj = {};
```

```
console.log(obj.__proto__ === Object.prototype);
```

Question98: END

Option:a) true

Option:b) false

Option:c) null

Option:d) undefined

Correct Option: a) true

Question99: START

What is the output of this code?

```
function test() {
```

```
    var x = 10;
```

```
    if (true) {
```

```
    var x = 20;  
  
    console.log(x);  
  
}  
  
console.log(x);  
  
}  
  
test();
```

Question99: END

Option:a) 10, 20

Option:b) 20, 10

Option:c) 20, 20

Option:d) Error

Correct Option: c) 20, 20

Question100: START

What will this function return?

```
function example() {  
  
    return arguments.length;  
  
}  
  
console.log(example(1, 2, 3, 4));
```

Question100: END

Option:a) 4

Option:b) undefined

Option:c) 3

Option:d) Error

Correct Option: a) 4

UNIT -III SERVER SIDE PROGRAMMING

Question1: START

What is the correct way to override the doGet method in a Java Servlet? (CO3)

```
@WebServlet("/hello")
public class HelloServlet extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        response.getWriter().write("Hello, World!");
    }
}
```

Question1: END

Option:A) public void doGet(HttpServletRequest req, HttpServletResponse res)

Option:B) public void doGet(HttpServletRequest request, HttpServletResponse response)

Option:C) protected void doGet(HttpServletRequest request, HttpServletResponse response)

Option:D) private void doGet(HttpServletRequest request, HttpServletResponse response)

Correct Option:: B) public void doGet(HttpServletRequest request, HttpServletResponse response)

Question2: START

What happens if we do not override the doGet or doPost method in a Servlet? (CO3)

```
@WebServlet("/test")
public class TestServlet extends HttpServlet {}
```

Question2: END

Option:A) It will cause a compilation error.

Option:B) The default implementation in HttpServlet will handle it.

Option:C) A NullPointerException will be thrown.

Option:D) The servlet container will ignore the request.

Correct Option:B) The default implementation in HttpServlet will handle it.

Question3: START

What is the correct order of the Servlet Life Cycle?

```
public class MyServlet extends HttpServlet {
    public void init() throws ServletException { /* Initialization */ }
```

```
public void doGet(HttpServletRequest req, HttpServletResponse res) throws  
IOException { /* Service */  
    public void destroy() { /* Cleanup */ }  
}
```

Question3: END

Option:A) init() -> service() -> destroy()

Option:B) doGet() -> init() -> destroy()

Option:C) destroy() -> init() -> service()

Option:D) service() -> init() -> destroy()

CorrecOption:A) init() -> service() -> destroy()

Question4: START

How can you retrieve a parameter from an HTTP request? (CO3)

t

```
String name = request.getParameter("username");
```

Question4: END

Option:A) request.fetchParameter("username")

Option:B) request.retrieveParameter("username")

Option:C) request.getParameter("username")

Option:D) request.readParameter("username")

CorrecOption: C) request.getParameter("username")

Question5: START

How do you set a session attribute in a Servlet?

```
HttpSession session = request.getSession();
```

```
session.setAttribute("user", "JohnDoe");
```

Question5: END

Option:A) session.storeAttribute("user", "JohnDoe")

Option:B) session.setValue("user", "JohnDoe")

Option:C) session.addAttribute("user", "JohnDoe")

Option:D) session.setAttribute("user", "JohnDoe")

CorrecOption:D) session.setAttribute("user", "JohnDoe")

Question6: START

Which syntax is used to include a JSP file at request time? (CO3)

```
<jsp:include page="header.jsp" />
```

Question6: END

Option:A) <%@ include file="header.jsp" %>

Option:B) <jsp:include page="header.jsp" />

Option:C) <jsp:import file="header.jsp" />

Option:D) <jsp:add file="header.jsp" />

Correct Option:B

Question7: START

How do you declare a variable in JSP using scriptlet? (CO3)

<% int count = 5; %>

Question7: END

Option:A) <jsp:declare int count = 5; />

Option:B) <%= int count = 5; %>

Option:C) <% int count = 5; %>

Option:D) <scriptlet> int count = 5; </scriptlet>

Correct Option: C

Question8: START

8. How do you write a JSP expression that prints the sum of two numbers? (CO3)

<%= 10 + 20 %>

Question8: END

Option:A) <% 10 + 20 %>

Option:B) <jsp:expression> 10 + 20 </jsp:expression>

Option:C) <%= 10 + 20 %>

Option:D) <jsp:output> 10 + 20 </jsp:output>

Correct Option:C

Question9: START

How do you create a JSP comment that will not be visible in the response HTML?(CO3)

<%-- This is a JSP comment --%>

Question9: END

Option:A) <!-- This is a JSP comment -->

Option:B) <%-- This is a JSP comment --%>

Option:C) /* This is a JSP comment */

Option:D) // This is a JSP comment

Correct Option: B

Question10: START

Which directive is used to import Java packages into JSP? (CO3)

<%@ page import="java.util.*" %>

Question10: END

Option:A) <jsp:import="java.util.*" />

Option:B) <%@ include file="java.util.*" %>

Option:C) <%@ page import="java.util.*" %>

Option:D) <page:import="java.util.*" />

Correct Option:C<%@ page import="java.util.*" %>

Question11: START

11. How do you load the MySQL JDBC driver in Java?(CO3)

Class.forName("com.mysql.cj.jdbc.Driver");

Question11: END

Option:A) DriverManager.load("com.mysql.cj.jdbc.Driver");

Option:B) Class.register("com.mysql.cj.jdbc.Driver");

Option:C) Class.forName("com.mysql.cj.jdbc.Driver");

Option:D) JDBC.loadDriver("com.mysql.cj.jdbc.Driver");

Correct Option: C) Class.forName("com.mysql.cj.jdbc.Driver");

Question12: START

How do you establish a JDBC connection?(CO3)

Connection con =

DriverManager.getConnection("jdbc:mysql://localhost:3306/dbname", "root", "password");

Question12: END

Option:A) DriverManager.connect("jdbc:mysql://localhost:3306/dbname", "root", "password");

Option:B) JDBC.getConnection("jdbc:mysql://localhost:3306/dbname", "root", "password");

Option:C) Connection con =

DriverManager.getConnection("jdbc:mysql://localhost:3306/dbname", "root", "password");

Option:D) Database.connect("jdbc:mysql://localhost:3306/dbname", "root", "password");

Correct Option: C

Question13: START

Which method is used to execute a SQL query that returns a result set? (CO3)

```
Statement stmt = con.createStatement();  
ResultSet rs = stmt.executeQuery("SELECT * FROM users");
```

Question13: END

Option:A) stmt.runQuery("SELECT * FROM users")

Option:B) stmt.execute("SELECT * FROM users")

Option:C) stmt.executeQuery("SELECT * FROM users")

Option:D) stmt.performQuery("SELECT * FROM users")

Correct Option: C

Question14: START

How do you insert a record into a database using JDBC?(CO3)

```
PreparedStatement ps = con.prepareStatement("INSERT INTO users(name, age)  
VALUES(?, ?)");  
ps.setString(1, "John");  
ps.setInt(2, 30);  
ps.executeUpdate();
```

Question14: END

Option:A) ps.insertUpdate();

Option:B) ps.runUpdate();

Option:C) ps.executeUpdate();

Option:D) ps.performInsert();

Correct Option: C

Question15: START

What is the correct method to close a JDBC connection?(CO30)

```
con.close();
```

Question15: END

Options:

Option:A) con.terminate();

Option:B) con.stop();

Option:C) con.close();

Option:D) con.exit();

Correct Option: C

Question16: START

How do you send a redirect response in a servlet?(CO3)

`response.sendRedirect("home.jsp");`

Question16: END

Option:A) `request.forward("home.jsp");`

Option:B) `response.redirect("home.jsp");`

Option:C) `response.sendRedirect("home.jsp");`

Option:D) `request.redirect("home.jsp");`

Correct Option:C

Question17: START

What is the default session timeout in Tomcat if not configured?(CO3)

Question17: END

Option:A) 10 minutes

Option:B) 30 minutes

Option:C) 60 minutes

Option:D) No timeout

Correct Option: B

Question18: START

What method is used to invalidate a session?(CO3)

`session.invalidate();`

Question18: END

Option:A) `session.terminate();`

Option:B) `session.close();`

Option:C) `session.invalidate();`

Option:D) `session.destroy();`

Correct Option: C

Question19: START

What method is used to read a cookie value in a servlet? (CO3)

java

CopyEdit

```
Cookie[] cookies = request.getCookies();
for (Cookie cookie : cookies) {
    if (cookie.getName().equals("user")) {
        out.print(cookie.getValue());
    }
}
```

```
}  
}
```

Question19: END

Option:A) `request.getCookie("user")`

Option:B) `request.fetchCookies("user")`

Option:C) `request.getCookies()`

Option:D) `request.readCookie("user")`

Correct Option: C

Question20: START

How do you write a cookie in a servlet? (CO3)

java

CopyEdit

```
Cookie cookie = new Cookie("username", "JohnDoe");  
response.addCookie(cookie);
```

Question20: END

Option:A) `response.setCookie(cookie);`

Option:B) `response.addCookie(cookie);`

Option:C) `response.writeCookie(cookie);`

Option:D) `request.addCookie(cookie);`

Correct Option: B

Question21: START

How do you retrieve a session attribute in JSP? (CO3)

jsp

CopyEdit

```
<%= session.getAttribute("username") %>
```

Question21: END

Option:A) `<%= session.retrieve("username") %>`

Option:B) `<%= session.fetch("username") %>`

Option:C) `<%= session.getAttribute("username") %>`

Option:D) `<%= request.getAttribute("username") %>`

Correct Option: C

Question22: START

Which JSP directive is used to define a Java class that extends HttpServlet? (CO3)

jsp

CopyEdit

```
<%@ page extends="MyServlet" %>
```

Question22: END

Option:A) <%@ include extends="MyServlet" %>

Option:B) <%@ page extends="MyServlet" %>

Option:C) <jsp:extends="MyServlet" />

Option:D) <%@ extends="MyServlet" %>

Correct Option: B

Would you like me to continue formatting the remaining questions in the same way?

4o

You said:

continue

ChatGPT said:

Here are the remaining questions in the same format:

Question23: START

How do you handle exceptions in JSP? (CO3)

jsp

CopyEdit

```
<%@ page errorPage="error.jsp" %>
```

Question23: END

Option:A) <jsp:exception page="error.jsp" />

Option:B) <%@ page errorPage="error.jsp" %>

Option:C) <jsp:catch page="error.jsp" />

Option:D) <%@ errorPage="error.jsp" %>

Correct Option: B

Question24: START

What will be the output of the following JSP expression? (CO3)

jsp

CopyEdit

```
<%= "Welcome".length() %>
```

Question24: END

Option:A) 6

Option:B) 5

Option:C) 7

Option:D) Error

Correct Option: A

Question25: START

What is the correct syntax to declare a JSP variable inside a scriptlet? (CO3)

jsp

CopyEdit

```
<% int counter = 10; %>
```

Question25: END

Option:A) <%= int counter = 10; %>

Option:B) <% int counter = 10; %>

Option:C) <jsp:variable counter="10" />

Option:D) <%! int counter = 10; %>

Correct Option: B

Question26: START

What is the correct way to execute a DELETE statement in JDBC? (CO3)

java

CopyEdit

```
PreparedStatement ps = con.prepareStatement("DELETE FROM  
users WHERE id=?");  
ps.setInt(1, 5);  
ps.executeUpdate();
```

Question26: END

Option:A) `ps.executeDelete()`;

Option:B) `ps.runUpdate()`;

Option:C) `ps.executeUpdate()`;

Option:D) `ps.performDelete()`;

Correct Option: C

Question27: START

How do you use a transaction in JDBC? (CO3)

java

CopyEdit

```
con.setAutoCommit(false);
Statement stmt = con.createStatement();
stmt.executeUpdate("UPDATE accounts SET balance=balance-500
WHERE id=1");
stmt.executeUpdate("UPDATE accounts SET balance=balance+500
WHERE id=2");
con.commit();
```

Question27: END

Option:A) `con.saveTransaction()`;

Option:B) `con.commit()`;

Option:C) `con.completeTransaction()`;

Option:D) `con.finalizeTransaction()`;

Correct Option: B

Question28: START

What is the purpose of `ResultSet.next()`? (CO3)

java

CopyEdit

```
while(rs.next()) {
    System.out.println(rs.getString("name"));
}
```

Question28: END

Option:A) Moves the cursor to the previous row

Option:B) Moves the cursor to the next row

Option:C) Moves the cursor to the first row

Option:D) Closes the **ResultSet**

Correct Option: B

Question29: START

How do you check if a JDBC connection is closed? (CO3)

java

CopyEdit

```
if (con.isClosed()) {  
    System.out.println("Connection closed");  
}
```

Question29: END

Option:A) **con.checkClosed()**;

Option:B) **con.isClosed()**;

Option:C) **con.closed()**;

Option:D) **con.status()**;

Correct Option: B

Question30: START

How do you get the number of rows affected by an update query? (CO3)

java

CopyEdit

```
int count = stmt.executeUpdate("UPDATE users SET age=25 WHERE  
id=1");
```

Question30: END

Option:A) **stmt.getRowCount()**;

Option:B) **stmt.executeUpdate()**;

Option:C) **stmt.rowCount()**;

Option:D) **stmt.getCount()**;

Correct Option: B

Question31: START

What is the default port number of Apache Tomcat? (CO3)

Question31: END

Option:A) 80
Option:B) 8080
Option:C) 443
Option:D) 8888
Correct Option: B

Question32: START
Where do you deploy a WAR file in Tomcat? (CO3)
Question32: END
Option:A) /bin
Option:B) /lib
Option:C) /webapps
Option:D) /conf
Correct Option: C

Question33: START
Which file is used to configure Tomcat users? (CO3)
Question33: END
Option:A) server.xml
Option:B) web.xml
Option:C) context.xml
Option:D) tomcat-users.xml
Correct Option: D

Question34: START
How do you start Tomcat from the command line? (CO3)

sh
CopyEdit
startup.sh

Question34: END
Option:A) run-tomcat.sh
Option:B) startup.sh
Option:C) start-server.sh
Option:D) boot-tomcat.sh
Correct Option: B

Question35: START

What is the purpose of **web.xml** in a Java web application? (CO3)

Question35: END

Option:A) To configure Tomcat settings

Option:B) To define servlet mappings and initialization parameters

Option:C) To store session data

Option:D) To store Java code

Correct Option: B

Would you like me to continue with the remaining questions?

40

You said:

continue

ChatGPT said:

Here are the next set of questions:

Question36: START

Which tag is used to define a servlet in **web.xml**? (CO3)

xml

CopyEdit

```
<servlet>
    <servlet-name>MyServlet</servlet-name>
    <servlet-class>com.example.MyServlet</servlet-class>
</servlet>
```

Question36: END

Option:A) **<web-app>**

Option:B) **<servlet>**

Option:C) **<servlet-mapping>**

Option:D) **<listener>**

Correct Option: B

Question37: START

Which tag in **web.xml** is used to map a servlet to a URL pattern? (CO3)

xml

CopyEdit

```
<servlet-mapping>
    <servlet-name>MyServlet</servlet-name>
    <url-pattern>/myservlet</url-pattern>
</servlet-mapping>
```

Question37: END

Option:A) **<url-mapping>**

Option:B) **<servlet>**

Option:C) **<servlet-mapping>**

Option:D) **<mapping>**

Correct Option: C

Question38: START

Which interface must a servlet implement? (CO3)

Question38: END

Option:A) **HttpServlet**

Option:B) **Servlet**

Option:C) **ServletConfig**

Option:D) **RequestDispatcher**

Correct Option: B

Question39: START

Which method is called when a servlet is first loaded? (CO3)

Question39: END

Option:A) **doGet()**

Option:B) **init()**

Option:C) **doPost()**

Option:D) **destroy()**

Correct Option: B

Question40: START

Which method is called to handle HTTP GET requests? (CO3)

Question40: END

Option:A) **doPost()**
Option:B) **service()**
Option:C) **doGet()**
Option:D) **init()**
Correct Option: C

Question41: START

Which method is used to forward a request in a servlet? (CO3)

```
java  
CopyEdit  
RequestDispatcher rd =  
request.getRequestDispatcher("nextPage.jsp");  
rd.forward(request, response);
```

Question41: END

Option:A) **sendRedirect()**
Option:B) **forward()**
Option:C) **include()**
Option:D) **redirectTo()**
Correct Option: B

Question42: START

Which method is used to redirect a response to another URL? (CO3)

```
java  
CopyEdit  
response.sendRedirect("http://example.com");
```

Question42: END

Option:A) **request.forward()**
Option:B) **response.redirect()**
Option:C) **response.sendRedirect()**
Option:D) **requestDispatcher.forward()**
Correct Option: C

Question43: START

What is the difference between `forward()` and `sendRedirect()`? (CO3)

Question43: END

Option:A) `forward()` is client-side, `sendRedirect()` is server-side

Option:B) `forward()` is server-side, `sendRedirect()` is client-side

Option:C) Both are server-side

Option:D) Both are client-side

Correct Option: B

Question44: START

Which object is used to store session data in servlets? (CO3)

Question44: END

Option:A) `HttpRequest`

Option:B) `HttpSession`

Option:C) `ServletContext`

Option:D) `SessionStorage`

Correct Option: B

Question45: START

Which method is used to set an attribute in a session? (CO3)

java

CopyEdit

```
session.setAttribute("username", "John");
```

Question45: END

Option:A) `session.addAttribute()`

Option:B) `session.putAttribute()`

Option:C) `session.setAttribute()`

Option:D) `session.insertAttribute()`

Correct Option: C

Question46: START

Which method is used to invalidate a session? (CO3)

java

CopyEdit

```
session.invalidate();
```


Question46: END

Option:A) `session.destroy()`

Option:B) `session.endSession()`

Option:C) `session.invalidate()`

Option:D) `session.terminate()`

Correct Option: C

Question47: START

Which directive is used to include another JSP file? (CO3)

jsp

CopyEdit

```
<%@ include file="header.jsp" %>
```

Question47: END

Option:A) `<jsp:include>`

Option:B) `<%@ include %>`

Option:C) `<jsp:insert>`

Option:D) `<%@ insert %>`

Correct Option: B

Question48: START

What is the purpose of `<jsp:include>`? (CO3)

Question48: END

Option:A) To include another JSP file dynamically at runtime

Option:B) To import Java classes

Option:C) To declare a scriptlet

Option:D) To call a servlet

Correct Option: A

Question49: START

Which lifecycle method is called before a servlet is destroyed? (CO3)

Question49: END

Option:A) `destroy()`

Option:B) `init()`

Option:C) `doGet()`

Option:D) `doPost()`

Correct Option: A

Question50: START

Which JSP directive is used to import Java classes? (CO3)

<%@ page import="java.util.*" %>

Question50: END

Option:A) <jsp:import>

Option:B) <%@ import %>

Option:C) <%@ page import %>

Option:D) <jsp:page import>

Correct Option: C

51. Which file is used to configure servlet mappings in Tomcat?(CO3)

Options:

A) server.xml

B) web.xml

C) tomcat.xml

D) context.xml

Answer: B

52. What command is used to stop Tomcat from the command line?(CO3)

shutdown.sh

Options:

A) stop-tomcat.sh

B) shutdown.sh

C) exit-tomcat.sh

D) terminate.sh

Answer: B

53. What is the purpose of the conf directory in Tomcat?(CO3)

Options:

A) Stores logs

B) Contains configuration files

C) Holds web applications

D) Manages security

Answer: B

54. What is the role of catalina.out in Tomcat?(CO3)

Options:

A) Stores error logs

- B) Contains request logs
- C) Captures standard output and error messages
- D) Manages security policies

Answer: C

55. How do you enable JSP debugging in Tomcat?(CO3)

Options:

- A) Modify logging.properties
- B) Enable JSP debugging in server.xml
- C) Set debug="true" in web.xml
- D) Enable debug mode in tomcat-users.xml

Answer: A

56. What is the correct way to retrieve form data in a servlet using GET?(CO3)

```
@WebServlet("/GetFormData")
public class GetFormDataServlet extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        String username = request.getParameter("username");
        response.getWriter().println("Welcome, " + username);
    }
}
```

Options:

- A) request.getParam("username");
- B) request.getParameter("username");
- C) request.fetchParam("username");
- D) request.getValue("username");

Answer: B

57. How do you create a session in a servlet?(CO3)

```
HttpSession session = request.getSession();
session.setAttribute("user", "JohnDoe");
response.getWriter().println("Session created!");
```

Options:

- A) session.createSession();
- B) request.createSession();
- C) request.getSession();
- D) session.newSession();

Answer: C

58. What is the correct way to read a request header in a servlet?(CO3)

```
Enumeration<String> headerNames = request.getHeaderNames();
while (headerNames.hasMoreElements()) {
    String header = headerNames.nextElement();
    System.out.println(header + ": " + request.getHeader(header));
}
```

Options:

- A) request.readHeaders();
- B) request.getAllHeaders();

- C) request.getHeaderNames();
- D) request.fetchHeaders();

Answer: C

59. What happens when you call `doPost()` inside `doGet()`?(CO3)

```
protected void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
    doPost(request, response);
}
```

Options:

- A) Method Not Allowed
- B) Infinite loop occurs
- C) `doPost()` is executed
- D) Servlet crashes

Answer: C

60. How do you redirect a response to another servlet?(CO3)

```
response.sendRedirect("AnotherServlet");
```

Options:

- A) request.redirect("AnotherServlet");
- B) response.forward("AnotherServlet");
- C) response.sendRedirect("AnotherServlet");
- D) request.forward("AnotherServlet");

Answer: C

61. How do you include another JSP page dynamically?(CO3)

```
<jsp:include page="header.jsp" />
```

Options:

- A) `<jsp:import page="header.jsp" />`
- B) `<jsp:include page="header.jsp" />`
- C) `<jsp:insert page="header.jsp" />`
- D) `<jsp:merge page="header.jsp" />`

Answer: B

62. How do you declare a method inside a JSP page?(CO3)

```
<%!
public int add(int a, int b) {
    return a + b;
}
%>
```

```
<%= add(5, 10) %>
```

Options:

- A) `<%! %>`
- B) `<%@ %>`
- C) `<%= %>`
- D) `<scriptlet %>`

Answer: A

63. How do you use JSTL to display a value?(CO3)

```
<c:out value="${user.name}" />
```

Options:

- A) <c:print value="\${user.name}" />
- B) <c:display value="\${user.name}" />
- C) <c:out value="\${user.name}" />
- D) <jsp:out value="\${user.name}" />

Answer: C

64. What does the following JSP expression output?(CO3)

```
<%= "Java".toUpperCase() %>
```

Options:

- A) JAVA
- B) java
- C) JAVAJAVA
- D) Error

Answer: A

65. How do you create a custom tag in JSP?(CO3)

```
public class HelloTag extends SimpleTagSupport {  
    public void doTag() throws JspException, IOException {  
        JspWriter out = getJspContext().getOut();  
        out.println("Hello, Custom Tag!");  
    }  
}
```

Options:

- A) extends JspTag
- B) extends SimpleTagSupport
- C) extends TagSupport
- D) implements JspTag

Answer: B

66. What is the correct way to execute a SELECT query in JDBC?(CO3)

```
Statement stmt = con.createStatement();  
ResultSet rs = stmt.executeQuery("SELECT * FROM users");  
while (rs.next()) {  
    System.out.println(rs.getString("name"));  
}
```

Options:

- A) stmt.runQuery()
- B) stmt.executeQuery()
- C) stmt.query()
- D) stmt.getQuery()

Answer: B

67. What is the proper way to close a database connection?(CO3)

```
rs.close();
```

```
stmt.close();  
con.close();
```

Options:

- A) stmt.close(); con.close(); rs.close();
- B) con.close(); stmt.close(); rs.close();
- C) rs.close(); stmt.close(); con.close();
- D) stmt.finalize();

Answer: C

68. What happens if `executeUpdate()` is called on a SELECT query?(CO3)

Options:

- A) Returns a ResultSet
- B) Throws SQLException
- C) Returns 0
- D) Updates the database

Answer: B

69. How do you check if a ResultSet is empty?(CO3)

```
if (!rs.isBeforeFirst()) {  
    System.out.println("No data found");  
}
```

Options:

- A) rs.isEmpty()
- B) rs.isBeforeFirst()
- C) rs.hasNext()
- D) rs.isLast()

Answer: B

70. What does `DriverManager.getConnection()` return?(CO3)

- A) Statement
- B) Connection
- C) ResultSet
- D) PreparedStatement

Answer: B

71. Where are Tomcat logs stored?(CO3)

Options:

- A) /conf
- B) /logs
- C) /bin
- D) /webapps

Answer: B

72. What is the purpose of `server.xml` in Tomcat?(CO3)

Options:

- A) Configure security settings
- B) Define servlet mappings
- C) Define server configurations
- D) Store database settings

Answer: C

73. How do you check if Tomcat is running?(CO3)

Options:

- A) ping localhost
- B) netstat -an | find "8080"
- C) check-tomcat.sh
- D) status-tomcat.sh

Answer: B

74. Which file is required to deploy a Java web application in Tomcat?(CO3)

Options:

- A) server.xml
- B) web.xml
- C) app.war
- D) index.jsp

Answer: C

75. What is the purpose of `context.xml` in Tomcat?(CO3)

Options:

- A) Configure servlet mappings
- B) Define database connections
- C) Define logging settings
- D) Set Tomcat startup parameters

Answer: B

76. What will the following servlet output when accessed via GET?(CO3)

```
import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
```

```
@WebServlet("/HelloServlet")
public class HelloServlet extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        response.setContentType("text/html");
        response.getWriter().println("<h1>Hello, World!</h1>");
    }
}
```

Options:

- A) Hello, World! in plain text
- B) <h1>Hello, World!</h1> as HTML
- C) Servlet Error
- D) NullPointerException

Answer: B

77. What does the following servlet do?(CO3)

```
@WebServlet("/CounterServlet")
public class CounterServlet extends HttpServlet {
    private static int counter = 0;

    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        counter++;
        response.getWriter().println("Page visited " + counter + " times.");
    }
}
```

Options:

- A) Displays the visit count
- B) Throws an exception
- C) Resets count on every request
- D) Displays static text

Answer: A

78. What will happen if the following servlet is accessed?(CO3)

```
t
@WebServlet("/SessionServlet")
public class SessionServlet extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        HttpSession session = request.getSession();
        Integer count = (Integer) session.getAttribute("count");

        if (count == null) {
            count = 1;
        } else {
            count++;
        }
        session.setAttribute("count", count);
        response.getWriter().println("Session Visit Count: " + count);
    }
}
```

Options:

- A) Maintains count across different sessions
- B) Counts visits for each session

- C) Throws NullPointerException
- D) Does not increment count

Answer: B

79. What will be the output of the following servlet handling cookies?(CO3)

```
@WebServlet("/CookieServlet")
public class CookieServlet extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        Cookie[] cookies = request.getCookies();
        boolean found = false;
        if (cookies != null) {
            for (Cookie cookie : cookies) {
                if (cookie.getName().equals("user")) {
                    response.getWriter().println("Welcome back, " + cookie.getValue());
                    found = true;
                }
            }
        }
        if (!found) {
            Cookie newCookie = new Cookie("user", "JohnDoe");
            response.addCookie(newCookie);
            response.getWriter().println("First-time visit! Cookie set.");
        }
    }
}
```

Options:

- A) Sets a cookie and greets new users
- B) Does not set cookies
- C) Throws an error
- D) Greets every visitor as JohnDoe

Answer: A

80. What will be the output of the following JSP page?(CO3)

```
<%@ page import="java.util.Date" %>
<%!
    private static int count = 0;
%>
<% count++; %>
<html>
<body>
```

```
<h1>Access Count: <%= count %></h1>
<h2>Current Date: <%= new Date() %></h2>
</body>
</html>
```

Options:

- A) Count increases every time
- B) Count resets on refresh
- C) Compilation error
- D) Shows a static count

Answer: A

81. What does this JSP tag do?(CO3)

```
<c:if test="${user.role == 'admin'}">
  <p>Welcome, Admin!</p>
</c:if>
```

Options:

- A) Executes if condition is true
- B) Always executes
- C) Syntax error
- D) Displays admin message even if user is not admin

Answer: A

82. What will happen when executing the following JDBC query?(CO3)

```
Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/testdb",
"root", "password");
PreparedStatement pstmt = con.prepareStatement("SELECT * FROM users WHERE
username=?");
pstmt.setString(1, "john_doe");
ResultSet rs = pstmt.executeQuery();
```

```
while (rs.next()) {
    System.out.println("User: " + rs.getString("username"));
}
```

Options:

- A) Retrieves user details
- B) Throws SQLException
- C) Fails due to syntax error
- D) Returns empty ResultSet

Answer: A

83. What happens when inserting a record using JDBC?(CO3)

```
Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/testdb",
"root", "password");
PreparedStatement pstmt = con.prepareStatement("INSERT INTO users (name, age)
VALUES (?, ?)");
pstmt.setString(1, "Alice");
pstmt.setInt(2, 25);
```

```
int rows = pstmt.executeUpdate();
System.out.println(rows + " row(s) inserted.");
```

Options:

- A) Inserts data successfully
- B) Throws an error
- C) Executes SELECT query
- D) Updates an existing record

Answer: A

84. What is the purpose of `web.xml` in Tomcat?(CO3)

```
<web-app>
  <servlet>
    <servlet-name>TestServlet</servlet-name>
    <servlet-class>com.example.TestServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>TestServlet</servlet-name>
    <url-pattern>/test</url-pattern>
  </servlet-mapping>
</web-app>
```

Options:

- A) Defines servlet configuration
- B) Runs database queries
- C) Manages Tomcat logs
- D) Configures JavaMail API

Answer: A

85. What does this Tomcat configuration do?(CO3)

```
<Connector port="8080" protocol="HTTP/1.1"
  connectionTimeout="20000"
  redirectPort="8443" />
```

Options:

- A) Configures HTTP connector
- B) Runs a SQL query
- C) Creates a servlet
- D) Handles JSP rendering

Answer: A

86. How do you deploy a WAR file in Tomcat?(CO3)

Options:

- A) Place it in the webapps folder
- B) Run deploy.sh
- C) Edit server.xml
- D) Upload via Tomcat Manager

Answer: A

87. What will happen if the following servlet is executed?(CO3)

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.*;

@WebServlet("/TestServlet")
public class TestServlet extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();

        String name = request.getParameter("name");
        if (name == null || name.isEmpty()) {
            name = "Guest";
        }

        out.println("<h1>Welcome, " + name + "!</h1>");
    }
}
```

Options:

- A) Displays "Welcome, Guest!" if no name is provided
- B) Throws NullPointerException
- C) Displays an error
- D) Only works for POST requests

Answer: A

88. What does this servlet do with session tracking?(CO3)

```
@WebServlet("/SessionTrack")
public class SessionTrack extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        HttpSession session = request.getSession();
        Integer visitCount = (Integer) session.getAttribute("visitCount");

        if (visitCount == null) {
            visitCount = 1;
        } else {
            visitCount++;
        }
        session.setAttribute("visitCount", visitCount);
        response.getWriter().println("You have visited " + visitCount + " times.");
    }
}
```

```
}
```

Options:

- A) Tracks user visits per session
- B) Always shows 1
- C) Throws an error
- D) Does not use sessions

Answer: A

89. What happens when this servlet handles cookies?(CO3)

```
@WebServlet("/CookieExample")
public class CookieExample extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        Cookie[] cookies = request.getCookies();
        boolean found = false;

        if (cookies != null) {
            for (Cookie cookie : cookies) {
                if (cookie.getName().equals("username")) {
                    response.getWriter().println("Welcome back, " + cookie.getValue());
                    found = true;
                }
            }
        }
        if (!found) {
            Cookie newCookie = new Cookie("username", "User123");
            newCookie.setMaxAge(60 * 60);
            response.addCookie(newCookie);
            response.getWriter().println("New cookie set for User123.");
        }
    }
}
```

Options:

- A) Sets a cookie if not found
- B) Throws an error
- C) Ignores existing cookies
- D) Always shows "New cookie set"

Answer: A

90. What is the output of this JSP page?(CO3)

```
<%@ page import="java.util.*" %>
<%!
    private int counter = 0;
%>
<% counter++; %>
<html>
```

```
<body>
  <h1>Counter Value: <Defines the structure and rules of an XML document%= counter
%></h1>
</body>
</html>
```

Options:

- A) Counter increments on every refresh
- B) Counter resets on every refresh
- C) Compilation error
- D) Counter always shows 1

Answer: A

91. What will this JSP tag do?(CO3)

```
<c:if test="{user.role == 'admin'}">
  <p>Welcome, Admin!</p>
</c:if>
```

Options:

- A) Executes if user role is admin
- B) Always executes
- C) Throws a syntax error
- D) Displays "Admin" regardless of user role

Answer: A

92. What does the following JSP code do?(CO3)

```
<jsp:include page="header.jsp" />
<html>
<body>
  <h1>Welcome to My Website</h1>
  <jsp:include page="footer.jsp" />
</body>
</html>
```

Options:

- A) Includes header.jsp and footer.jsp
- B) Throws an error
- C) Does not include external files
- D) Runs as plain HTML

Answer: A

93. What will happen when executing this JDBC query?(CO3)

```
Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/mydb",
"root", "password");
PreparedStatement pstmt = con.prepareStatement("SELECT * FROM users WHERE id =
?");
pstmt.setInt(1, 5);
```

```
ResultSet rs = pstmt.executeQuery();

while (rs.next()) {
    System.out.println("User: " + rs.getString("name"));
}
```

Options:

- A) Fetches user with id 5
- B) Throws SQLException
- C) Returns empty result
- D) Fails due to missing statement

Answer: A

94. What happens when this JDBC insert query runs?(CO3)

```
Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/mydb",
"root", "password");
PreparedStatement pstmt = con.prepareStatement("INSERT INTO users (name, age)
VALUES (?, ?)");
pstmt.setString(1, "Alice");
pstmt.setInt(2, 30);
int rows = pstmt.executeUpdate();
System.out.println(rows + " row(s) inserted.");
```

Options:

- A) Inserts a new record
- B) Throws an error
- C) Updates an existing record
- D) Deletes a record

Answer: A

95. What does this Tomcat configuration do?(CO3)

```
<Connector port="8080" protocol="HTTP/1.1"
    connectionTimeout="20000"
    redirectPort="8443" />
```

Options:

- A) Configures Tomcat HTTP connector
- B) Runs a SQL query
- C) Creates a new servlet
- D) Handles JSP execution

Answer: A

96. How do you deploy a WAR file in Tomcat?(CO3)

Options:

- A) Place it in the webapps folder
- B) Run deploy.sh
- C) Edit server.xml
- D) Restart Tomcat

Answer: A

97. What is the purpose of `web.xml`?(CO3)

```
<web-app>
  <servlet>
    <servlet-name>MyServlet</servlet-name>
    <servlet-class>com.example.MyServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>MyServlet</servlet-name>
    <url-pattern>/hello</url-pattern>
  </servlet-mapping>
</web-app>
```

Options:

- A) Defines servlet configuration
- B) Executes database queries
- C) Manages Tomcat security
- D) Handles JavaMail

Answer: A

98. What does this servlet do?

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.*;

@WebServlet("/LogoutServlet")
public class LogoutServlet extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        HttpSession session = request.getSession(false);

        if (session != null) {
            session.invalidate();
            response.getWriter().println("Session invalidated. Logged out successfully.");
        } else {
            response.getWriter().println("No active session found.");
        }
    }
}
```

Options:

- A) Invalidates the user session
- B) Creates a new session
- C) Throws a NullPointerException
- D) Does nothing

Answer: A

99. What will be the output of this JSP page?

```
<%@ page import="java.util.*" %>
<%!
    private static List<String> users = new ArrayList<>();
%>
<%
    String user = request.getParameter("user");
    if (user != null && !user.isEmpty()) {
        users.add(user);
    }
%>
<html>
<body>
    <h1>Users List:</h1>
    <ul>
        <% for (String u : users) { %>
            <li><%= u %></li>
        <% } %>
    </ul>
</body>
</html>
```

Options:

- A) Stores user names across requests
- B) Clears list on every request
- C) Throws an error
- D) Only displays the latest user

Answer: A

Question100: START

100. What happens when executing this JDBC update query?

```
import java.sql.*;
public class UpdateUser {
    public static void main(String[] args) {
        try {
            Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/mydb", "root", "password");
            PreparedStatement pstmt = con.prepareStatement("UPDATE users SET age = ?
WHERE name = ?");
            pstmt.setInt(1, 35);
            pstmt.setString(2, "Alice");
            int rows = pstmt.executeUpdate();
            System.out.println(rows + " row(s) updated.");
            con.close();
        } catch (SQLException e) {
            e.printStackTrace();
        }
    }
}
```

```
}  
}
```

Question100:END

Option:A) Updates Alice's age

Option:B) Throws SQLException

Option:C) Deletes Alice's record

Option:D) Does not update anything

Correct Option: A) Updates Alice's age

UNIT IV-PHP AND XML

Question1: START

What is the main purpose of PHP in web development?

Question1: END

Option_a: To style web pages

Option_b: To create dynamic and interactive web pages

Option_c: To manage databases only

Option_d: To compile JavaScript

correct_option: To create dynamic and interactive web pages

Question2: START

What will be the output of the following PHP code?

```
$x = "10";
```

```
$y = 10;
```

```
if ($x === $y)
{
    echo "Equal";
}
else
{
    echo "Not Equal";
}
Question2: END
```

Option_a: Equal
Option_b: Not Equal
Option_c: Error
Option_d: 10
correct_option: Not Equal

Question3: START

Which of the following is the correct way to declare a PHP variable?

Question3: END

Option_a: \$var = 10;
Option_b: var \$10 = "value";
Option_c: int var = 10;
Option_d: var = 10;
correct_option: \$var = 10;

Question4: START

What will be the output of the following PHP code?

```
$var1 = "5" + 5;
```

```
echo $var1;
```

Question4: END

Option_a: "55"
Option_b: 10
Option_c: Error
Option_d: Undefined
correct_option: 10

Question5: START

What is the difference between **echo** and **print** in PHP?

Question5: END

Option_a: **echo** can take multiple parameters, while **print** cannot
Option_b: **print** can take multiple parameters, while **echo** cannot
Option_c: **echo** returns a value, but **print** does not
Option_d: Both **echo** and **print** behave exactly the same

correct_option: **echo** can take multiple parameters, while **print** cannot

Question6: START

What does the following PHP code output?

```
$var = 0;  
if ($var) {  
    echo "True"; }  
else {  
    echo "False"; }
```

Question6: END

Option_a: True
Option_b: False
Option_c: Error
Option_d: 0
correct_option: False

Question7: START

How do you check if a variable is set in PHP?

Question7: END

Option_a: isset(\$var)
Option_b: is_set(\$var)
Option_c: var_exist(\$var)
Option_d: ifset(\$var)
correct_option: isset(\$var)

Question8: START

Which of the following functions is used to remove whitespace from the beginning and end of a string?

Question8: END

Option_a: trim()
Option_b: strtrim()
Option_c: strip_tags()
Option_d: remove_whitespace()
correct_option: trim()

Question9: START

What will be the output of the following code?

```
$str = "Hello";  
echo strrev($str);
```

Question9: END

Option_a: Hello

Option_b: Helo
Option_c: olleH
Option_d: Error
correct_option: olleH

Question10: START

What is the correct way to define a constant in PHP?

Question10: END

Option_a: const PI = 3.14;
Option_b: define("PI", 3.14);
Option_c: constant("PI", 3.14);
Option_d: set_constant("PI", 3.14);
correct_option: define("PI", 3.14);

Question11: START

What is the default value of an uninitialized PHP variable?

Question11: END

Option_a: NULL
Option_b: 0
Option_c: "" (empty string)
Option_d: Undefined
correct_option: NULL

Question12: START

What will `strpos("Hello World", "World")` return?

Question12: END

Option_a: 6
Option_b: 5
Option_c: 7
Option_d: -1
correct_option: 6

Question13: START

Which PHP function is used to redirect to another page?

Question13: END

Option_a: header("Location: page.php");
Option_b: redirect("page.php");
Option_c: move("page.php");
Option_d: goto("page.php");
correct_option: header("Location: page.php");

Question14: START

How do you start a PHP session?

Question14: END

Option_a: session_start();
Option_b: start_session();
Option_c: init_session();
Option_d: session();
correct_option: session_start();

Question15: START

Which superglobal array is used to retrieve form data sent via the POST method?

Question15: END

Option_a: \$_POST
Option_b: \$_GET
Option_c: \$_FORM
Option_d: \$_REQUEST
correct_option: \$_POST

Question16: START

What will be the output of the following PHP script?

```
$array = array("A", "B", "C");  
echo count($array);
```

Question16: END

Option_a: 2
Option_b: 3
Option_c: 4
Option_d: Error
correct_option: 3

Question17: START

What does `filter_var($email, FILTER_VALIDATE_EMAIL)` do?

Question17: END

Option_a: Validates if `$email` is a proper email format
Option_b: Filters out special characters from an email
Option_c: Converts an email to lowercase
Option_d: Encrypts an email
correct_option: Validates if `$email` is a proper email format

Question18: START

What is the purpose of `die()` in PHP?

Question18: END

Option_a: To stop execution and output a message
Option_b: To delete a variable
Option_c: To close a database connection
Option_d: To restart the script
correct_option: To stop execution and output a message

Question19: START

What does the following regular expression match?

```
preg_match("/^hello/", "hello world");
```

Question19: END

Option_a: Matches if "hello" is at the end of the string
Option_b: Matches if "hello" is at the beginning of the string
Option_c: Matches "hello" anywhere in the string
Option_d: Error in the regular expression
correct_option: Matches if "hello" is at the beginning of the string

Question20: START

Which PHP function is used to perform a regular expression search in a string?

Question20: END

Option_a: match_regex()
Option_b: regex_find()
Option_c: preg_find()
Option_d: preg_match()
correct_option: preg_match()

Question21: START

What will `preg_match("/[0-9]{3}/", "PHP 123")` return?

Question21: END

Option_a: 0 (no match)
Option_b: NULL
Option_c: 1 (match found)
Option_d: Error
correct_option: 1 (match found)

Question22: START

What does the regex `/\d+/` match?

Question22: END

Option_a: One or more digits
Option_b: One or more non-digit characters
Option_c: Only letters

Option_d: A single digit
correct_option: One or more digits

Question23: START

What does the `/\s/` regex pattern match?

Question23: END

Option_a: Any digit
Option_b: Any non-whitespace character
Option_c: Any letter
Option_d: Any whitespace character
correct_option: Any whitespace character

Question24: START

What will the following regex `/[a-z]{3,5}/` match?

Question24: END

Option_a: Words with exactly 3 letters
Option_b: Words with exactly 5 letters
Option_c: Words with 3 to 5 lowercase letters
Option_d: Words with length of 2 to 4 lowercase letters
correct_option: Words with 3 to 5 lowercase letters

Question25: START

Which modifier makes a regex case-insensitive in PHP?

Question25: END

Option_a: `/pattern/i`
Option_b: `/pattern/c`
Option_c: `/pattern/s`
Option_d: `/pattern/m`
correct_option: `/pattern/i`

Question26: START

What function is used to read an entire file into a string?

Question26: END

Option_a: `file_get_contents()`
Option_b: `read_file()`
Option_c: `fopen("file.txt", "r")`
Option_d: `file_read_all()`
correct_option: `file_get_contents()`

Question27: START

Which mode should be used with `fopen()` to open a file for writing and create it if it doesn't exist?

Question27: END

Option_a: "a"
Option_b: "x"
Option_c: "w"
Option_d: "r"
correct_option: "w"

Question28: START

What does `fread($file, 100)` do?

Question28: END

Option_a: Reads the entire file
Option_b: Reads 100 bytes from a file
Option_c: Closes a file
Option_d: Writes 100 bytes to a file
correct_option: Reads 100 bytes from a file

Question29: START

What function deletes a file in PHP?

Question29: END

Option_a: delete("file.txt")
Option_b: remove("file.txt")
Option_c: erase("file.txt")
Option_d: unlink("file.txt")
correct_option: unlink("file.txt")

Question30: START

What is the difference between "w" and "a" mode in `fopen()`?

Question30: END

Option_a: "w" appends to the file, "a" overwrites the file
Option_b: "w" overwrites the file, "a" appends to the file
Option_c: "w" does not create a new file, "a" does
Option_d: "w" is for reading, "a" is for writing
correct_option: "w" overwrites the file, "a" appends to the file

Question31: START

What is a cookie in PHP?

Question31: END

Option_a: A PHP function to store user credentials
Option_b: A file stored on the server
Option_c: A small file stored on the client's browser

Option_d: A database entry for user sessions
correct_option: A small file stored on the client's browser

Question32: START

How do you create a cookie in PHP?

Question32: END

Option_a: setcookie("username", "John", time()+3600);
Option_b: create_cookie("username", "John");
Option_c: cookie_set("username", "John", time()+3600);
Option_d: store_cookie("username", "John");
correct_option: setcookie("username", "John", time()+3600);

Question33: START

Which PHP superglobal is used to retrieve cookies?

Question33: END

Option_a: \$_COOKIES
Option_b: \$_COOKIE
Option_c: \$_SESSION
Option_d: \$_REQUEST
correct_option: \$_COOKIE

Question34: START

Which function is used to establish a database connection with MySQL?

Question34: END

Option_a: pdo_connect()
Option_b: db_connect()
Option_c: mysql_connect()
Option_d: mysqli_connect()
correct_option: mysqli_connect()

Question35: START

What parameters does `mysqli_connect()` require?

Question35: END

Option_a: Host, database
Option_b: Username, password
Option_c: Host, username, password, database
Option_d: None of these
correct_option: Host, username, password, database

Question36: START

How do you check if the database connection is successful?

Question36: END

Option_a: if (!\$conn) { die("Connection failed: " . mysqli_connect_error()); }
Option_b: if (!\$conn) { echo "Failed"; }
Option_c: if (\$conn == 0) { echo "Error"; }
Option_d: if (\$conn == null) { exit(); }
correct_option: if (!\$conn) { die("Connection failed: " . mysqli_connect_error()); }

Question37: START

What does the following code do?

```
$conn = new mysqli("localhost", "root", "", "mydb");
```

Question37: END

Option_a: Fetches data from a table
Option_b: Creates a new MySQLi connection
Option_c: Deletes a database
Option_d: Closes the database connection
correct_option: Creates a new MySQLi connection

Question38: START

How do you fetch a single row as an associative array from a result set in MySQLi?

Question38: END

Option_a: mysqli_fetch_assoc(\$result)
Option_b: fetch_row(\$result)
Option_c: get_row(\$result)
Option_d: mysqli_get_assoc(\$result)
correct_option: mysqli_fetch_assoc(\$result)

Question39: START

Which function closes a MySQLi database connection?

Question39: END

Option_a: close_db(\$conn)
Option_b: disconnect(\$conn)
Option_c: mysqli_exit(\$conn)
Option_d: mysqli_close(\$conn)
correct_option: mysqli_close(\$conn)

Question40: START

Which of the following is true about secure cookies?

Question40: END

Option_a: They are only sent over HTTPS
Option_b: They can only store encrypted data
Option_c: They expire after the browser session
Option_d: They cannot be deleted

correct_option: They are only sent over HTTPS

Question41: START

How do you retrieve all cookies sent by the client?

Question41: END

Option_a: Using `get_cookies()`

Option_b: Using `$_REQUEST`

Option_c: Using `$_COOKIE`

Option_d: Using `cookie_get_all()`

correct_option: Using `$_COOKIE`

Question42: START

Which function is used to retrieve the number of affected rows in MySQLi?

Question42: END

Option_a: `mysqli_affected_rows($conn);`

Option_b: `mysql_rows_count($conn);`

Option_c: `mysqli_num_rows($conn);`

Option_d: `mysqli_get_rows($conn);`

correct_option: `mysqli_num_rows($conn);`

Question43: START

What is the purpose of `bindParam()` in PDO?

Question43: END

Option_a: Executes a database query

Option_b: Closes the database connection

Option_c: Retrieves the last inserted ID

Option_d: Binds a variable to a parameter in a prepared statement

correct_option: Binds a variable to a parameter in a prepared statement

Question44: START

What does XML stand for?

Question44: END

Option_a: eXtra Modern Language

Option_b: Extended Machine Language

Option_c: eXtensible Markup Language

Option_d: eXecutable Multiple Language

correct_option: eXtensible Markup Language

Question45: START

What is the main purpose of XML?

Question45: END

Option_a: To display data
Option_b: To program web pages
Option_c: To create databases
Option_d: To store and transport data
correct_option: To store and transport data

Question46: START

Which of the following statements is true about XML?

Question46: END

Option_a: XML tags are predefined
Option_b: XML tags are case-insensitive
Option_c: XML is used to structure data
Option_d: XML is a replacement for HTML
correct_option: XML is used to structure data

Question47: START

Which of the following is NOT a characteristic of XML?

Question47: END

Option_a: It is case-sensitive
Option_b: It allows user-defined tags
Option_c: It supports complex data structures
Option_d: It is used only for web development
correct_option: It is used only for web development

Question48: START

What is the correct way to write an XML declaration?

Question48: END

Option_a: <xml version="1.0">
Option_b: <?xml version="1.0" encoding="UTF-8"?>
Option_c: <!DOCTYPE xml SYSTEM "example.dtd">
Option_d: <?xml encoding="UTF-8"?>
correct_option: <?xml version="1.0" encoding="UTF-8"?>

Question49: START

What is the purpose of a DTD in XML?

Question49: END

Option_a: Encrypts XML documents
Option_b: Defines the style of an XML document
Option_c: Defines the structure and rules of an XML document
Option_d: Converts XML into HTML

correct_option: Defines the structure and rules of an XML document

Question50: START

Which of the following is a correct way to declare an internal DTD?

Question50: END

Option_a: <!DOCTYPE note SYSTEM "note.dtd">

Option_b: <!DOCTYPE note [<!ELEMENT note (#PCDATA)>]>

Option_c: <?xml-doctype note>

Option_d: <DTD note "note.dtd">

correct_option: <!DOCTYPE note [<!ELEMENT note (#PCDATA)>]>

Question51: START

In DTD, what does #PCDATA mean?

Question51: END

Option_a: Precompiled Data

Option_b: Defines an element in XML

Option_c: Private Character Data

Option_d: Parsed Character Data

correct_option: Defines an element in XML

Question52: START

What is the purpose of <!ELEMENT> in a DTD?

Question52: END

Option_a: Declares a new attribute

Option_b: Defines an XML comment

Option_c: Links external stylesheets

Option_d: Defines an element in XML

correct_option: Defines an element in XML

Question53: START

How do you define an attribute in a DTD?

Question53: END

Option_a: <!ELEMENT attribute CDATA #IMPLIED>

Option_b: <!ATTR element attribute CDATA>

Option_c: <!ATTLIST element attribute CDATA #IMPLIED>

Option_d: <ATTLIST attribute CDATA #REQUIRED>

correct_option: !ATTLIST element attribute CDATA #IMPLIED>

Question54: START

What is the purpose of XML Schema (XSD)?

Question54: END

Option_a: Encrypts XML data
Option_b: Defines the structure and data types in XML
Option_c: Converts XML to HTML
Option_d: Parses XML
correct_option: Defines the structure and data types in XML

Question55: START
What is the correct namespace for XML Schema?
Question55: END

Option_a: <http://www.w3.org/XMLSchema>
Option_b: <http://www.w3.org/2001/XMLSchema>
Option_c: <http://www.xml-schema.org>
Option_d: <http://www.xml.org/schema>
correct_option: <http://www.w3.org/2001/XMLSchema>

Question16: START
Which XSD data type should be used for a numeric value with decimal places?
Question16: END

Option_a: xs:float
Option_b: xs:integer
Option_c: xs:string
Option_d: xs:decimal
correct_option: xs:decimal

Question57: START
How do you specify a required attribute in XSD?
Question57: END

Option_a: mandatory="yes"
Option_b: attribute="required"
Option_c: use="required"
Option_d: #REQUIRED
correct_option: use="required"

Question58: START
What does `<xs:sequence>` do in XSD?
Question58: END

Option_a: Defines a namespace
Option_b: Creates an unordered list
Option_c: Enforces element order
Option_d: Specifies attributes
correct_option: Enforces element order

Question59: START

Which of the following best describes the Document Object Model (DOM)?

Question59: END

Option_a: A database for storing XML files

Option_b: A validation tool for XML schemas

Option_c: A programming interface for XML and HTML documents

Option_d: A transformation language for XML

correct_option: A programming interface for XML and HTML documents

Question60: START

How does the DOM represent an XML document?

Question60: END

Option_a: As a JSON object

Option_b: As a set of key-value pairs

Option_c: As a flat text file

Option_d: As a tree structure

correct_option: As a tree structure

Question61: START

Which of the following is NOT a method provided by the DOM for XML manipulation?

Question61: END

Option_a: getElementById()

Option_b: querySelectorAll()

Option_c: parseJSON()

Option_d: getElementsByTagName()

correct_option: parseJSON()

Question62: START

What is the primary purpose of an XML parser?

Question62: END

Option_a: To execute JavaScript within XML

Option_b: To create new XML schemas

Option_c: To validate and transform XML documents

Option_d: To generate random XML files

correct_option: To validate and transform XML documents

Question63: START

Which of the following is true about a DOM parser?

Question63: END

Option_a: It processes XML sequentially without loading it into memory

Option_b: It loads the entire XML document into memory

Option_c: It does not allow data manipulation

Option_d: It cannot be used in web browsers

correct_option: It loads the entire XML document into memory

Question64: START

Which language is commonly used for transforming XML documents?

Question64: END

Option_a: CSS

Option_b: JSON

Option_c: XSLT

Option_d: SQL

correct_option: XSLT

Question65: START

What happens if an XML document does not conform to its associated DTD or XSD?

Question65: END

Option_a: I The document is considered well-formed but not valid

Option_b: The document is automatically corrected

Option_c: The document is compressed

Option_d: The document is always rejected

correct_option: The document is considered well-formed but not valid

Question66: START

Which method in the DOM is used to create a new XML element?

Question66: END

Option_a: createNode()

Option_b: createElement()

Option_c: addTag()

Option_d: newElement()

correct_option: createElement()

Question67: START

What does the `getElementsByTagName()` method return?

Question67: END

Option_a: A list of elements matching the specified tag name

Option_b: A single element with the given tag name

Option_c: A JSON representation of the XML document

Option_d: A copy of the XML schema

correct_option: A list of elements matching the specified tag name

Question68: START

What is the main purpose of a namespace in XML?

Question68: END

Option_a: To uniquely identify elements and avoid name conflicts
Option_b: To define new XML parsing rules
Option_c: To compress XML files
Option_d: To execute JavaScript within XML
correct_option: To uniquely identify elements and avoid name conflicts

Question69: START

How can an XML document reference an external DTD?

Question69: END

Option_a: Using the `<schema>` tag
Option_b: Using a `<validation>` element
Option_c: Using the `<!DOCTYPE>` declaration
Option_d: Using the `<?xml version="1.0"?>` header
correct_option: Using the `<!DOCTYPE>` declaration

Question70: START

Which of the following is NOT a benefit of using XSD over DTD?

Question70: END

Option_a: XSD supports data types
Option_b: XSD is written in XML syntax
Option_c: XSD is more flexible than DTD
Option_d: XSD does not support namespaces
correct_option: XSD does not support namespaces

Question71: START

Which method in the DOM is used to remove a node?

Question71: END

Option_a: deleteElement()
Option_b: removeChild()
Option_c: eraseNode()
Option_d: dropElement()
correct_option: removeChild()

Question72: START

What is the main purpose of XML validation?

Question72: END

Option_a: To optimize XML file size
Option_b: To ensure the document adheres to a defined structure
Option_c: To transform XML into other formats
Option_d: To encrypt XML content
correct_option: To ensure the document adheres to a defined structure

Question73: START

What is the primary purpose of XSL

Question73: END

Option_a: To structure XML data

Option_b: To define how XML data is displayed or transformed

Option_c: To store XML data in databases

Option_d: To validate XML documents

correct_option: To define how XML data is displayed or transformed

Question74: START

Which of the following is a major component of XSL?

Question74: END

Option_a: XSLT

Option_b: XSD

Option_c: XQuery

Option_d: JSON

correct_option: XSLT

Question75: START

What is the main purpose of XSLT?

Question75: END

Option_a: To validate XML documents

Option_b: To compress XML files

Option_c: To transform XML documents into different formats

Option_d: To encrypt XML content

correct_option: To transform XML documents into different formats

Question76: START

Which of the following is NOT a valid output format of an XSLT transformation?

Question76: END

Option_a: HTML

Option_b: Plain Text

Option_c: PDF

Option_d: XML

correct_option: PDF

Question77: START

What is the role of `<xsl:value-of select="" />` in XSLT?

Question77: END

Option_a: To create a new XML element

Option_b: To apply a stylesheet
Option_c: To define a new template
Option_d: To retrieve and display the value of an XML node
correct_option: To retrieve and display the value of an XML node

Question78: START

What is the correct syntax to match the root node in an XSLT template?

Question78: END

Option_a: <xsl:template match="root"/>
Option_b: <xsl:template match="/">
Option_c: <xsl:template match="*">
Option_d: <xsl:template match="document"/>
correct_option: <xsl:template match="/">

Question79: START

Which of the following XSLT elements is used to apply templates to child elements?

Question79: END

Option_a: <xsl:call-template/>
Option_b: <xsl:value-of/>
Option_c: <xsl:element/>
Option_d: <xsl:apply-templates/>
correct_option: <xsl:apply-templates/>

Question80: START

What is the purpose of `<xsl:for-each>` in XSLT?

Question80: END

Option_a: To create a new element
Option_b: To iterate over a set of XML nodes
Option_c: To declare a variable
Option_d: To apply a conditional transformation
correct_option: To iterate over a set of XML nodes

Question81: START

How can you sort elements in XSLT?

Question81: END

Option_a: Using `<xsl:sort>`
Option_b: Using `<xsl:order>`
Option_c: Using `<xsl:sequence>`
Option_d: Using `<xsl:filter>`
correct_option: Using `<xsl:sort>`

Question82: START

How can an XSLT stylesheet be referenced in an XML file?

Question82: END

Option_a: Using `<?xml-stylesheet href="style.xml"?>`

Option_b: Using `<stylesheet href="style.xml"?>`

Option_c: Using `<xsl:reference href="style.xml"?>`

Option_d: Using `<?xml:link href="style.xml"?>`

correct_option: Using `<?xml-stylesheet href="style.xml"?>`

Question83: START

What is the full form of XSLT?

Question83: END

Option_a: XML Style Language Transformation

Option_b: Extensible Stylesheet Language Transformation

Option_c: XML Standard Language Template

Option_d: Extensible Structure Language Transformation

correct_option: Extensible Stylesheet Language Transformation

Question84: START

What does DTD stand for in XML?

Question84: END

Option_a: Document Transformation Definition

Option_b: Data Transfer Document

Option_c: Document Type Definition

Option_d: Dynamic Tag Design

correct_option: Document Type Definition

Question85: START

What is the expansion of XSD in XML?

Question85: END

Option_a: XML Structured Document

Option_b: Extensible Stylesheet Definition

Option_c: Extensible Standard Data

Option_d: XML Schema Definition

correct_option: XML Schema Definition

Question86: START

What will be the output of this PHP script?

```
<?php $str = "Hello";
```

```
$str .= " World!";
```

```
echo $str; ?>
```

Question86: END

Option_a: Hello
Option_b: World!
Option_c: Hello World!
Option_d: Error
correct_option: Hello World!

Question87: START

What will be the output of the following PHP script?

```
<?php
function test()
{
    static $count = 0;
    $count++;
    echo $count;
}
test();
test();
test();
?>
```

Question87: END

Option_a: 1 1 1
Option_b: 1 2 3
Option_c: 0 1 2
Option_d: 3 3 3
correct_option: 1 2 3

Question88: START

What will be the output of the following PHP script?

```
<?php
$x = "Hello";
$y = &$x;
$y = "World";
echo $x;
?>
```

Question88: END

Option_a: Hello
Option_b: HelloWorld
Option_c: World
Option_d: Error
correct_option: World

Question89: START

What will be the output of this PHP program?

```
<?php
```

```
$a = 10;  
$b = "10";  
if ($a == $b)  
{  
    echo "Equal";  
}  
else  
{  
    echo "Not Equal";  
}  
?>
```

Question89: END

Option_a: Equal
Option_b: Not Equal
Option_c: Error
Option_d: No output
correct_option: Equal

Question90: START

What does the following PHP function do?

```
<?php  
function check($num)  
{  
    return ($num % 2 == 0) ? "Even" : "Odd";  
}  
echo check(5);  
?>
```

Question90: END

Option_a: Even
Option_b: Odd
Option_c: Error
Option_d: No output
correct_option: Odd

Question91: START

What is the default HTTP request method when a form is submitted in PHP?

Question91: END

Option_a: GET
Option_b: POST
Option_c: PUT
Option_d: DELETE
correct_option: GET

Question92: START

What is the purpose of `session_start()` in PHP?

Question92: END

Option_a: To destroy an existing session

Option_b: To initialize a new session or resume an existing one

Option_c: To create a database connection

Option_d: To clear all session variables

correct_option: To initialize a new session or resume an existing one

Question93: START

Which function is used to destroy a session in PHP?

Question93: END

Option_a: `session_destroy()`

Option_b: `session_unset()`

Option_c: `session_end()`

Option_d: `session_remove()`

correct_option: `session_destroy()`

Question94: START

What does the `$_SERVER['REQUEST_METHOD']` variable return?

Question94: END

Option_a: The server's hostname

Option_b: The client's IP address

Option_c: The method used to request the page (GET, POST, etc.)

Option_d: The PHP script's file path

correct_option: The method used to request the page (GET, POST, etc.)

Question95: START

Consider the below php code, find the suitable value for the given filling

```
<html>
```

```
<body>
```

```
<form method="get">
```

```
<input type="text" name="val">
```

```
<input type="submit" value="Submit">
```

```
</form>
```

```
<?php
```

```
$v=-----["-----"];
```

```
?>
```

Question95: END

Option_a: `$_POST`, value

Option_b: `$_GET`, value

Option_c: `$_POST`, val

Option_d: \$_GET, val
correct_option: \$_GET, val

Question96: START

What is the primary purpose of sessions in PHP?

Question96: END

Option_a: To store user data on the client
Option_b: To store user data across multiple pages on the server
Option_c: To encrypt client data
Option_d: To increase server speed
correct_option: To store user data across multiple pages on the server9

Question97: START

What is the main difference between \$_GET and \$_POST?

Question97: END

Option_a: \$_GET is more secure than \$_POST
Option_b: \$_POST can send data but \$_GET cannot
Option_c: \$_GET appends data to the URL, \$_POST does not
Option_d: \$_POST sends data as an email
correct_option: \$_GET appends data to the URL, \$_POST does not

Question98: START

All variables in PHP start with which symbol?

Question98: END

Option_a: &
Option_b: !
Option_c: %
Option_d: \$
correct_option: \$

Question99: START

How do you create an array in PHP?

Question99: END

Option_a: \$cars = array("Volvo", "BMW", "Toyota");
Option_b: \$cars = array["Volvo", "BMW", "Toyota"];
Option_c: \$cars = "Volvo", "BMW", "Toyota";
Option_d: \$cars = array{"Volvo", "BMW", "Toyota"};
correct_option: \$cars = array("Volvo", "BMW", "Toyota");

Question100: START

What is the output of the following PHP code?

```
<?php
```

```
$a=5;
```

```
$b=$a++;
```

```
echo $a and $b;
```

```
?>
```

Question100: END

Option_a: 5 and 5

Option_b: 5 and 6

Option_c: 6 and 6

Option_d: 6 and 5

correct_option: 6 and 5

UNIT V WEB SERVICES AND NETWORK APPLICATIONS

Question1: START

Which of the following best describes a web service?

Question1: END

Option_a: A web application that interacts with users

Option_b: A self-contained, modular application that can be published and accessed over a network

Option_c: A static HTML page served by a web server

Option_d: A Java servlet that runs on Tomcat

correct_option: self-contained, modular application that can be published and accessed over a network

Question2: START

What is the primary role of SOAP in web services?

Question2: END

Option_a: It is used for securing web services

Option_b: It enables browsers to interpret web services

Option_c: It defines a messaging protocol for exchanging structured data between systems

Option_d: It is a UI framework for web applications

correct_option: It defines a messaging protocol for exchanging structured data between systems

Question3: START

Which of the following is NOT a type of web service in Java?

Question3: END

Option_a: SOAP-based Web Service

Option_b: RESTful Web Service

Option_c: JSP-based Web Service

Option_d: JSON-RPC Web Service

correct_option: JSP-based Web Service

Question4: START

Why are web services important in enterprise applications?

Question4: END

Option_a: They allow interoperability between different platforms

Option_b: They improve database efficiency

Option_c: They eliminate the need for a web server

Option_d: They only work with Java-based applications

correct_option: They allow interoperability between different platforms

Question5: START

In which standard Java API are JAX-WS web services implemented?

Question5: END

Option_a: javax.xml.soap

Option_b: javax.net.http

Option_c: javax.ws.rs

Option_d: javax.xml.ws

correct_option: javax.xml.ws

Question6: START

Which annotation is used to define a JAX-WS web service in Java?

Question6: END

Option_a: @RestController

Option_b: @Service

Option_c: @WebService

Option_d: @SOAPBinding

correct_option: @WebService

Question7: START

What does the `endpoint.publish()` method do in a web service?

Question7: END

Option_a: Registers the web service with UDDI

Option_b: Publishes the web service at a given URL

Option_c: Deploys the web service to a client application

Option_d: Converts the web service to a REST API

correct_option: Publishes the web service at a given URL

Question8: START

When publishing a web service using JAX-WS, which class provides a built-in mechanism to deploy without an external server?

Question8: END

Option_a: WebServer

Option_b: SOAPHandler

Option_c: WSDLGenerator

Option_d: Endpoint

correct_option: Endpoint

Question9: START

What is the role of `@WebMethod` in a Java web service?

Question9: END

Option_a: It defines a new REST endpoint

Option_b: It exposes a method as a SOAP web service operation

Option_c: It secures a web service using authentication

Option_d: It serialized Java objects into JSON

correct_option: It exposes a method as a SOAP web service operation

Question10: START

Which tool is commonly used to test SOAP web services?

Question10: END

Option_a: Postman

Option_b: JMeter

Option_c: SoapUI

Option_d: Selenium

correct_option: SoapUI

Question11: START

Which HTTP method is typically used to invoke a SOAP-based web service?

Question11: END

Option_a: GET

Option_b: POST
Option_c: PUT
Option_d: DELETE
correct_option: POST

Question12: START

How can a RESTful web service be tested in Java?

Question12: END

Option_a: Using JUnit and the `WebTarget` class
Option_b: By deploying it on an FTP server
Option_c: By creating a JSP page to invoke it
Option_d: By running it only on Tomcat
correct_option: Using JUnit and the `WebTarget` class

Question13: START

What is the significance of a WSDL document during testing?

Question13: END

Option_a: It helps in understanding the service contract
Option_b: It is required for deploying the service
Option_c: It contains security policies for the service
Option_d: It stores the database schema
correct_option: It helps in understanding the service contract

Question14: START

What is an effective way to test a web service's performance?

Question14: END

Option_a: Sending a single request and checking the response
Option_b: Running multiple concurrent requests using load testing tools
Option_c: Checking its response time manually
Option_d: Deploying it without testing
correct_option: Running multiple concurrent requests using load testing tools

Question15: START

What does WSDL stand for?

Question15: END

Option_a: Web Standard Data Language
Option_b: Web-based SOAP Document Language
Option_c: Web Services Description Language
Option_d: Web Server Definition Language
correct_option: Web Services Description Language

Question16: START

What are the main components of a WSDL document?

Question16: END

Option_a: Endpoint, Servlet, Request, and Response

Option_b: Protocol, Service, REST, and SOAP

Option_c: XML, JSON, SOAP, and HTTP

Option_d: Service, PortType, Binding, and Operation

correct_option: Service, PortType, Binding, and Operation

Question17: START

How does WSDL define the operations of a web service?

Question17: END

Option_a: By specifying an operation name and input/output parameters

Option_b: By using JSON objects to describe methods

Option_c: By creating Java classes for each method

Option_d: By embedding SQL queries in XML

correct_option: By specifying an operation name and input/output parameters

Question18: START

What is the purpose of the <binding> element in WSDL?

Question18: END

Option_a: It secures the web service using encryption

Option_b: It stores authentication details

Option_c: It maps operations to a specific network protocol

Option_d: It defines a database connection

correct_option: It maps operations to a specific network protocol

Question19: START

What happens if a WSDL file is incorrect?

Question19: END

Option_a: The service will still run but may produce errors

Option_b: Clients won't be able to consume the service properly

Option_c: The service will automatically correct the file

Option_d: The WSDL is not required for a SOAP-based web service

correct_option: Clients won't be able to consume the service properly

Question20: START

How does UDDI relate to web services?

Question20: END

Option_a: It secures web services using encryption

Option_b: It converts SOAP services to RESTful services
Option_c: It optimizes web service execution time
Option_d: It is a directory service for registering and discovering web services
correct_option: It is a directory service for registering and discovering web services

Question21: START

What role does @Path annotation play in RESTful web services?

Question21: END

Option_a: It encrypts web service communication
Option_b: It defines the base URI for the REST resource
Option_c: It maps SOAP services to REST services
Option_d: It generates WSDL files dynamically
correct_option: It defines the base URI for the REST resource

Question22: START

Which statement is true about RESTful web services?

Question22: END

Option_a: They are lightweight and use HTTP methods like GET and POST
Option_b: They always use SOAP for communication
Option_c: They require a WSDL file for operation
Option_d: They cannot return JSON responses
correct_option: They are lightweight and use HTTP methods like GET and POST

Question23: START

How can security be implemented in Java web services?

Question23: END

Option_a: By disabling all authentication mechanisms
Option_b: By exposing services only to public networks
Option_c: By using plain HTTP without encryption
Option_d: By using HTTPS, authentication, and tokens
correct_option: By using HTTPS, authentication, and tokens

Question24: START

Which of the following is the first step in consuming a SOAP web service in Java?

Question24: END

Option_a: Creating a database connection
Option_b: Generating the client stub from WSDL
Option_c: Writing SQL queries
Option_d: Implementing a RESTful endpoint
correct_option: Generating the client stub from WSDL

Question25: START

Which Java API is commonly used to consume SOAP web services?

Question25: END

Option_a: JAX-WS

Option_b: JAX-RS

Option_c: JDBC

Option_d: Hibernate

correct_option: JAX-WS

Question26: START

What is the purpose of the `Service` class in JAX-WS?

Question26: END

Option_a: It defines the database connection for web services

Option_b: It secures the SOAP communication

Option_c: It provides a client-side entry point to the SOAP service

Option_d: It converts SOAP messages into JSON

correct_option: It provides a client-side entry point to the SOAP service

Question27: START

What is required to consume a SOAP web service using JAX-WS?

Question27: END

Option_a: A RESTful API URL

Option_b: A WSDL file

Option_c: A relational database

Option_d: A JavaScript front-end

correct_option: A WSDL file

Question28: START

How can a SOAP web service client be generated in Java?

Question28: END

Option_a: Using `wsimport` tool

Option_b: Using `sqlimport` tool

Option_c: By manually writing XML request messages

Option_d: By writing JavaScript functions

correct_option: Using `wsimport` tool

Question29: START

Which Java class is responsible for making the actual SOAP request when consuming a web service?

Question29: END

Option_a: `WebServiceClient`

Option_b: `Service`

Option_c: `BindingProvider`
Option_d: `SOAPHandler`
correct_option: `BindingProvider`

Question30: START

How can authentication be added while consuming a SOAP web service?

Question30: END

Option_a: By appending username/password in the WSDL
Option_b: By embedding credentials in the URL
Option_c: Using `BindingProvider` to set SOAP headers
Option_d: By using SQL queries
correct_option: Using `BindingProvider` to set SOAP headers

Question31: START

What is the role of `@WebServiceRef` in Java web service clients?

Question31: END

Option_a: It registers the client in UDDI
Option_b: It injects a reference to a web service
Option_c: It establishes a database connection
Option_d: It generates SOAP messages
correct_option: It injects a reference to a web service

Question32: START

What happens if a SOAP service URL changes in a generated client stub?

Question32: END

Option_a: The client will automatically update the URL
Option_b: The client continues to work without issues
Option_c: SOAP services do not use URLs
Option_d: The WSDL must be recompiled using `wsimport`
correct_option: The WSDL must be recompiled using `wsimport`

Question33: START

What is a database-driven web service?

Question33: END

Option_a: A web service that only consumes external APIs
Option_b: A web service that stores and retrieves data from a database
Option_c: A web service that does not use XML
Option_d: A web service that is only accessible on localhost
correct_option: A web service that stores and retrieves data from a database

Question34: START

Which Java API is commonly used for database connectivity in SOAP-based web services?

Question34: END

Option_a: JAX-RS

Option_b: JPA

Option_c: JDBC

Option_d: Hibernate

correct_option: JDBC

Question35: START

In a SOAP-based database-driven web service, where is the database logic typically placed?

Question35: END

Option_a: In the WSDL file

Option_b: In the service implementation class

Option_c: Deployment

Option_d: Implementation

correct_option: Implementation