

Week 7: Web Systems and Technologies

****Modifying DOM Elements****

1. Which method is used to change the text content of an HTML element?

- a) ``getElementById``
- b) ``innerText``
- c) ``innerHTML``
- d) ``setAttribute``
- ****Answer: c) innerHTML****

****Creating DOM elements****

2. How do you create a new HTML element in JavaScript?

- a) ``document.createElement("div")``
- b) ``document.newElement("div")``
- c) ``createNewElement("div")``
- d) ``createElement("div")``
- ****Answer: a) document.createElement("div")****

****Event Handling****

3. Which of the following is used to attach an event handler to an element?

- a) ``addEventListener``
- b) ``attachEvent``

- c) `onEvent`
- d) `setEvent`
- ****Answer: a) addEventListener****

****Capturing and Bubbling****

4. Event capturing and bubbling are phases of which process?

- a) Event propagation
- b) Event delegation
- c) Event binding
- d) Event creation
- ****Answer: a) Event propagation****

****Event Types****

5. Which event is fired when a user presses a key on the keyboard?

- a) `keydown`
- b) `keypress`
- c) `keyup`
- d) `keyclick`
- ****Answer: a) keydown****

****Form Validation; Client Side Input Validation****

6. Which HTML attribute is used to specify that an input field must be filled out before submitting the form?

- a) `required`
- b) `validate`
- c) `mandatory`
- d) `check`
- ****Answer: a) required****

****Introduction to jQuery****

7. Which symbol is used as a shorthand for jQuery?

- a) `#`
- b) `\*`
- c) `\$`
- d) `@`
- ****Answer: c) \$****

****Query Selectors****

8. Which jQuery selector is used to select elements with a specific class?

- a) `\$("#class")`
- b) `\$(".class")`
- c) `\$("class")`
- d) `\$("class.")`
- ****Answer: b) \$(".class")****

****jQuery Manipulators****

9. How do you hide an element using jQuery?

- a) ``$("#element").hide();``
- b) ``$("#element").display(false);``
- c) ``$("#element").css("display", "none");``
- d) ``$("#element").invisible();``
- **Answer: a) ``$("#element").hide();``**

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jQuery Manipulators - Example

10. Which jQuery method is used to change the HTML content of a selected element?

- a) ``html()``
- b) ``text()``
- c) ``content()``
- d) ``changeHTML()``
- **Answer: a) `html()`**

Events in Query

11. How do you attach a click event to a button using jQuery?

- a) ``$("button").click(function() {});``

- b) ``$("button").onClick(function() {});``
- c) ``$("button").attachClick(function() {});``
- d) ``$("button").clickEvent(function() {});``
- ****Answer: a) ``$("button").click(function() {});``**

****DOM Manipulation using jQuery****

12. Which jQuery method is used to remove an element from the DOM?

- a) ``remove()``
- b) ``delete()``
- c) ``discard()``
- d) ``eliminate()``
- ****Answer: a) ``remove()``**

****Animations using jQuery****

13. Which method is used to create a fade-out effect in jQuery?

- a) ``fadeOut()``
- b) ``fade()``
- c) ``fadeAway()``
- d) ``fadeEffect()``
- ****Answer: a) ``fadeOut()``**

****Introduction to Ajax****

14. What does AJAX stand for?

- a) Asynchronous JavaScript And XML
- b) Active JavaScript And XML
- c) Advanced JavaScript And XML
- d) Asynchronous JSON And XML
- ****Answer: a) Asynchronous JavaScript And XML****

****Asynchronous File Transmission****

15. Which method is used to send a request to a server using jQuery's AJAX?

- a) `$.send()`
- b) `$.get()`
- c) `$.post()`
- d) `$.ajax()`
- ****Answer: d) `$.ajax()`****

****Introduction to server side development, Comparison of server side technologies****

16. Which of the following is a server-side technology?

- a) PHP
- b) HTML
- c) CSS
- d) JavaScript
- ****Answer: a) PHP****

****Installation of Apache webserver, PHP and MySQL for Local Development****

17. Which software is commonly used to create a local server environment for PHP development?

- a) WAMP
- b) MAMP
- c) XAMPP
- d) All of the above
- ****Answer: d) All of the above****

****Introduction to PHP****

18. PHP code is executed on the:

- a) Client-side
- b) Server-side
- c) Database-side
- d) None of the above
- ****Answer: b) Server-side****

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****Introduction to PHP (String Concatenation)****

19. Which operator is used for string concatenation in PHP?

- a) `.`
- b) `+`
- c) `&`
- d) `@`
- ****Answer: a) `.`**

****Program Control - Conditional Program Statements****

20. Which of the following is a valid conditional statement in PHP?

- a) `if...else`
- b) `when...then`
- c) `select...case`
- d) `switch...else`
- ****Answer: a) if...else****

****Program Control - Loops****

21. Which loop is used to iterate over an array in PHP?

- a) `foreach`
- b) `for`
- c) `while`
- d) `do...while`
- ****Answer: a) foreach****

****Functions in PHP (1)****

22. How do you define a function in PHP?

- a) ``function myFunction() {``
- b) ``def myFunction() {``
- c) ``function:myFunction() {``
- d) ``define myFunction() {``
- ****Answer:** a) `function myFunction() {``

****Functions in PHP (2)****

23. Which keyword is used to return a value from a function in PHP?

- a) ``return``
- b) ``yield``
- c) ``send``
- d) ``give``
- ****Answer:** a) `return``

****Arrays in PHP****

24. How do you create an indexed array in PHP?

- a) ``$array = array("value1", "value2");``
- b) ``$array = ["value1", "value2"];``
- c) Both a and b
- d) None of the above

- ****Answer: c) Both a and b****

****Sorting Arrays****

25. Which function is used to sort an array in ascending order in PHP?

- a) ``sort()``
- b) ``rsort()``
- c) ``asort()``
- d) ``ksort()``

- ****Answer: a) `sort()`**

****Arrays - Super Global****

26. Which superglobal array holds information about uploaded files?

- a) ``$_FILES``
- b) ``$_POST``
- c) ``$_GET``
- d) ``$_REQUEST``

- ****Answer: a) `$_FILES``**

****`$_GET` and `$_POST` Arrays****

27. Which superglobal array is used to collect form data after submitting an HTML form with method="post"?

- a) ``$_POST``
- b) ``$_GET``

- c) `\$\_FORM`
- d) `\$\_REQUEST`
- **Answer: a) \$_POST`

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\$_GET and \$_POST arrays - Example

28. What is the correct way to access a form data submitted via the GET method?

- a) `\$\_GET['name']`
- b) `\$\_POST['name']`
- c) `\$\_REQUEST['name']`
- d) `\$\_FORM['name']`
- **Answer: a) \$_GET['name']`

\$_SERVER Array

29. Which element of the \$_SERVER array holds the script name?

- a) `\$\_SERVER['SCRIPT\_NAME']`
- b) `\$\_SERVER['SCRIPT\_FILENAME']`

Accessing MySQL in PHP

1. ****Which function is used to execute a MySQL query using the mysqli extension?****

- A) ``mysql_query()``
- B) ``mysqli_query()``
- C) ``mysql_exec()``
- D) ``execute_query()``

****Answer: B) ``mysqli_query()``****

2. ****How do you close a PDO connection?****

- A) ``close($pdo)``
- B) ``$pdo->close()``
- C) ``$pdo = null``
- D) ``disconnect($pdo)``

****Answer: C) ``$pdo = null``****

3. ****What method is used to fetch a record from a PDO result set into an associative array?****

- A) ``fetch_assoc()``
- B) ``fetch_array()``

- C) ``fetch_assoc_array()``
- D) ``fetch()``

****Answer: D) ``fetch()``**

4. ****How do you begin a transaction in PDO?****

- A) ``$pdo->startTransaction()``
- B) ``$pdo->beginTransaction()``
- C) ``$pdo->openTransaction()``
- D) ``$pdo->transaction()``

****Answer: B) ``$pdo->beginTransaction()``**

Working with Parameters

5. ****Which placeholder technique is used in the following SQL statement?****

```
```php
```

```
$sql = "INSERT INTO books (ISBN10, Title, CopyrightYear, ImprintId,
ProductionStatusId, TrimSize, Description) VALUES (?, ?, ?, ?, ?, ?, ?)";
```

```
$statement = $pdo->prepare($sql);
```

```
```
```

- A) Named parameters
- B) Positional placeholders

- C) Indexed placeholders
- D) Array placeholders

****Answer: B) Positional placeholders****

6. ****Which function binds a value to a parameter in a PDO statement using named parameters?****

- A) ``bind()``
- B) ``bindParam()``
- C) ``bindValue()``
- D) ``bindName()``

****Answer: C) ``bindValue()``**

Error Handling

7. ****Which setting specifies whether error messages should be displayed in the browser?****

- A) ``error_reporting``
- B) ``display_errors``
- C) ``log_errors``
- D) ``show_errors``

****Answer: B) `display\_errors`**

8. ****How do you specify which type of errors are to be reported in PHP?****

- A) `ini\_set('display\_errors', '1');`
- B) `ini\_set('error\_reporting', E\_ALL);`
- C) `ini\_set('log\_errors', '1');`
- D) `ini\_set('report\_errors', '1');`

****Answer: B) `ini\_set('error\_reporting', E\_ALL);`**

Regular Expressions

9. ****What does the regular expression pattern `\\d` match?****

- A) Any digit
- B) Any non-digit
- C) Any whitespace character
- D) Any word character

****Answer: A) Any digit****

10. ****Which regular expression pattern matches any character except a newline?****

- A) `\\w`

- B) `\s``
- C) ``.`
- D) `\n``

****Answer: C) ``.`` ****

11. ****What does the regular expression pattern `^abc$`` mean? ****

- A) Matches "abc" at the start or end of a string
- B) Matches "abc" anywhere in the string
- C) Matches "abc" only at the end of a string
- D) Matches "abc" exactly at the start and end of the string

****Answer: D) Matches "abc" exactly at the start and end of the string ****

MCQs on Angular and AngularJS

1. ****What is Angular? ****

- A) A server-side framework
- B) A popular browser-based, open-source JavaScript MVC framework (Google driven)
- C) A database management system
- D) A CSS framework

- **Correct Answer: B**

2. **Which language is NOT used with Angular?**

- A) TypeScript

- B) JavaScript

- C) Dart

- D) Python

- **Correct Answer: D**

3. **Which framework is AngularJS based on?**

- A) TypeScript

- B) JavaScript

- C) Dart

- D) Python

- **Correct Answer: B**

4. **What does the 'A' in the MEAN stack stand for?**

- A) ASP.NET

- B) Angular

- C) Android

- D) Assembly

- **Correct Answer: B**

MCQs on Web Sockets

5. **What is WebSocket?**

- A) A synchronous communication protocol
- B) A full duplex communication protocol
- C) A half duplex communication protocol
- D) A data storage protocol
- **Correct Answer: B**

6. **Which of the following is used to create a WebSocket server in Node.js?**

- A) `require('http')`
- B) `require('socket.io')`
- C) `require('express')`
- D) `require('fs')`
- **Correct Answer: B**

MCQs on Web Hosting

7. **Which of the following is NOT a type of web hosting?**

- A) Shared Hosting
- B) Virtualized Hosting
- C) Dedicated Hosting

- D) Static Hosting
- **Correct Answer: D**

8. **Which hosting type provides the highest level of control over the server?**

- A) Shared Hosting
- B) Virtualized Hosting
- C) Dedicated Hosting
- D) Collocated Hosting
- **Correct Answer: C**

MCQs on Domain and Name Server Administration

9. **What does DNS stand for?**

- A) Domain Network System
- B) Domain Name System
- C) Domain Naming Service
- D) Digital Name System
- **Correct Answer: B**

10. **Which command can be used to check the status of DNS records?**

- A) whois
- B) ping

- C) dig
- D) traceroute
- **Correct Answer: C**

MCQs on Search Engines and SEO

11. **What is the purpose of PageRank in search engines?**

- A) To index websites
- B) To rank websites based on their importance
- C) To crawl web pages
- D) To manage web servers
- **Correct Answer: B**

12. **Which of the following is a Black Hat SEO technique?**

- A) Using alt tags for images
- B) Keyword stuffing
- C) Writing original content
- D) Creating a sitemap
- **Correct Answer: B**

MCQs on Online Social Networks

13. **What is the primary purpose of social networks?**

- A) To provide free email services
- B) To enable users to create profiles and connect with others
- C) To serve as web browsers
- D) To host domain names
- ****Correct Answer: B****

14. ****Which plugin allows users to share content on Facebook?****

- A) Google AdSense
- B) FBML (Facebook Markup Language)
- C) Twitter Widgets
- D) Bing Analytics
- ****Correct Answer: B****

MCQs on Monetization with Ads

15. ****Which metric measures the cost per thousand impressions in online advertising?****

- A) CPC
- B) CPM
- C) CPA
- D) CTR
- ****Correct Answer: B****

16. ****What is the first step to monetize a website with Google AdSense?****

- A) Create a Facebook page
- B) Register for a Google AdSense account
- C) Write a blog post
- D) Use the dig command
- ****Correct Answer: B****

MCQs on Web Analytics

17. ****What does the bounce rate measure in web analytics?****

- A) The number of page views
- B) The average visit duration
- C) The percentage of visitors who leave after viewing only one page
- D) The total number of unique visitors
- ****Correct Answer: C****

18. ****Which tool can provide third-party web analytics?****

- A) Google Analytics
- B) Microsoft Word
- C) FTP
- D) SSH
- ****Correct Answer: A****