Which of the following is the most appropriate functionality of server-side scripting?

- 1. Generate web pages
- 2. Data exchange
- 3. Form validation
- 4. Data consistency

Answer: A

Explanation: Server-side scripts (PHP, ASP, etc.) dynamically build HTML before sending it to the client.

## Question 2

Which HTTP request method is used to perform a loop-back test along the path to the target resource?

- 1. HEAD
- 2. TRACE
- 3. CONNECT
- 4. OPTIONS

Answer: B

Explanation: TRACE causes the server to echo back the received request so the client can see any changes made by intermediate proxies.

# Question 3:

Which element specifies a list of predefined options for input controls?

- A. <datalist>
- B. <select>
- C. <option>
- D. <menu>

Answer: A

Explanation: The <datalist> element provides a set of suggested values that an <input> can reference via its list attribute.

## Question 4

Tags and text that are not directly displayed on the page are written in the \_\_\_\_\_ section.

- 1. head
- 2. body
- 3. header
- 4. footer

Answer: A

Explanation: Metadata, scripts, styles, and the page title go in

## Question 5

Which of the following browsers supports HTML5 in its latest version?

- 1. Mozilla Firefox
- 2. Opera
- 3. Both of the above
- 4. None of the above

Answer: C

Explanation: Modern releases of Firefox, Opera (and Chrome, Edge, Safari) implement HTML5.

Question 6

Which attribute triggers events when a form control's value changes?

- 1. onchange
- 2. onedit
- 3. onformchange
- 4. onforminput

Answer: A

Explanation: The onchange event fires when the element loses focus after its value is modified.

Question 7

Which CSS property controls whether adjacent table-cell borders collapse into a single border?

- 1. border-collapse
- 2. border-spacing
- 3. caption-side
- 4. empty-cells

Answer: A

Explanation: border-collapse: collapse; causes shared borders to be drawn once.

## Question 8

Which CSS pseudo-class signifies visited hyperlinks?

- 1. :link
- 2. :visited
- 3. :hover
- 4. :active

Answer: B

Explanation: :visited matches links the user has already clicked.

## Question 9

Which of the following is part of a CSS rule?

- 1. Selector
- 2. Declarations
- 3. Property and value
- 4. All of the above

Answer: D

Explanation: A CSS rule comprises a selector and one or more declarations (property: value pairs).

## Question 10

How do you specify a background image in CSS?

- background-image: src('image.png');
- 2. background-image: url('image.png');
- 3. background-image: href('image.png');
- 4. background-image: hrf('image.png');

Answer: B

Explanation: url() is the correct function to reference external images.

What would be the output of the PHP code below?

echo date('y-M-d h:i:s', strtotime('2017-11-16 16:01:13'));

- 1. 2017-11-16 04:00:55
- 2. 17-11-16 04:00:46
- 3. 17-Nov-16 04:01:13
- 4. 17-Nov-16 16:01:13

# Answer: C

# Explanation:

y yields two-digit year (17), M short month name (Nov), h 12-hour format (04), and minutes/seconds remain 01:13.

## Question 12

Which statement is true about echo in PHP?

- 1. Echo is just a statement
- 2. Echo is a function
- 3. Echo returns and prints the value
- 4. Echo is a pretty-print function

#### Answer: A

Explanation: echo is a language construct, not a function; it does not return a value.

## Question 13

What is the syntax for multi-line commenting in PHP?

- 1. // comment
- 2. /\* comment \*/

#### comment

Answer: B

Explanation: /\* ... \*/ spans comments over multiple lines in PHP.

## Question 14

What does \$out contain after this code?

$$a = 2$$
;  $a = 2$ ;  $a = 2$ ;  $5 : false; echo  $u$ ;$ 

- 1. 2
- 2. 5
- 3. false
- 4. true

#### Answer: B

Explanation: The ternary picks 5 because a = 2 evaluates to true.

## Question 15

Which function reads a specific number of characters from a file in PHP?

- 1. Filegets()
- 2. Getfile()
- 3. fgets()
- 4. fget()

## Answer: C

Explanation: fgets (\$fp, \$length) reads up to length-1 bytes from a file pointer.

## Question 16

How many error levels does PHP support?

- 1. 16
- 2. 14
- 3. 15
- 4. 17

#### Answer: A

Explanation: PHP defines 16 standard error-reporting levels (E\_ERROR, E\_WARNING, etc.).

## Question 17

Which function returns the error code for a MySQL connection error in PHP?

- connect\_error()
- 2. mysqli\_connect\_error()
- mysqli\_connect\_errno()
- 4. connect\_errno()

## Answer: C

Explanation: mysqli\_connect\_errno() returns the numeric error code from the last connect attempt.

## Question 18

What does the sprintf() function do in PHP?

- 1. Prints output by converting it to a string
- 2. Sends formatted output directly to a variable
- 3. Sends formatted output to a variable (as a string)

## 4. Prints output of a program

Answer: C

Explanation: sprintf() returns a formatted string; printf() prints it.

Question 19

What is the output of this PHP dynamic call?

function HelloWorld() { echo "HelloWorld"; } \$name = "helloworld"; \$name();

- 1. Fatal Error
- 2. Helloworld
- 3. HelloWorld
- 4. No Output

Answer: C

Explanation: Function names in PHP are case-insensitive; it invokes HelloWorld().

Question 20

Count the number of array elements in:

\$animals = array( "Lion", "Tiger", "Leopard", array("Dog", "Cat", "Cow"),
array("Fish", "Turtle", "Whale") );

- 1. 11
- 2. 9
- 3. 10
- 4. 5

Answer: B

Explanation: Three top-level + three in the first sub-array + three in the second = 9 total.

Question 21

What is the correct syntax of the XML declaration?

- 1.
- 2.
- 3.
- 4.

Answer: C

Explanation: The XML prolog uses with no space after .

| XML | is | designed | to | and | store | data. |
|-----|----|----------|----|-----|-------|-------|
|     |    |          |    |     |       |       |

- 1. transport
- 2. design
- 3. verify
- 4. None of these

#### Answer: A

Explanation: XML's primary purpose is to transport and carry structured data.

## Question 23

In DTD, defines:

- 1.
- 2.
- 3.
- 4.

## Answer: D

Explanation: introduces the document type declaration.

## Question 24

To associate an external DTD, which is the correct syntax?

- 1.
- 2.
- 3.
- 4. None of these

## Answer: B

Explanation: The SYSTEM keyword directs the parser to an external DTD file.

## Question 25

#### XSLT is used for:

- 1. Transforming an XML document into another XML document
- 2. Using XPath to navigate XML documents
- 3. Being a W3C Recommendation
- 4. Being a Cascading Style Sheet

#### Answer: A

Explanation: XSLT's core purpose is XML  $\rightarrow$  XML (or HTML/text) transformation.

In the XML snippet below, how many nodes and attributes are present?

## XML Tutorials 100 \$300.00

- 5. 6 nodes, 1 attribute
- 6. 7 nodes, 1 attribute
- 7. 8 nodes, 1 attribute
- 8. 7 nodes, 2 attributes

## Answer: B

Explanation: Nodes: book, bname, text("XML Tutorials"), pages, text("100"), price, text("\$300.00") = 7; Attribute: category = 1.

## Question 27

Templates in XSLT are defined by which element?

- 1.
- 2.
- 3.
- 4.

#### Answer: B

Explanation: defines a template for matching and processing XML nodes.

## Question 28

Some characters have special meaning in XML; these are called:

- 1. Variables
- 2. Symbols
- 3. Entities
- 4. None of these

#### Answer: C

Explanation: Entities (like <, &) represent reserved XML characters.

## Question 29

Which size class is not available in Bootstrap?

- **1.** x1
- **2.** lg
- **3.** sm
- **4.** xs

#### Answer: D

Explanation: Bootstrap's grid breakpoints start at sm (576 px); there is no xs class.

## Question 30

Which font-color scheme is not available in Bootstrap?

- 1. warning
- 2. danger
- 3. information
- 4. muted

#### Answer: C

Explanation: Bootstrap's contextual text color classes include .text-warning, .text-danger, .text-info, and .text-muted; there is no .text-information.

#### Question 31

Which code returns a valid JSON object?

```
    JSON.parse('({"FirstName": "Web", "LastName": "Programming"})');
    JSON.parse("{'FirstName': 'Web', 'LastName': 'Programming'}");
    JSON.parse("({'FirstName': 'Web', 'LastName': 'Programming'})");
    JSON.parse('{"FirstName": "Web", "LastName": "Programming"}');
```

#### Answer: D

Explanation: JSON requires double quotes around keys and string values; option D is the only valid format.

#### Question 32

```
In { "Employee": ["Amit", "Nilesh", "Abhishek"] }, "Employee" is a:

1. Not a valid JSON string
2. Array
3. Class
```

#### Answer: D

4. Object

Explanation: The curly braces { ... } denote a JSON object; "Employee" is its key.

## Question 33

Which size class is not available in Bootstrap? (duplicate of Q29)

- 1. xl
- **2.** lg
- **3.** sm
- **4.** xs

Answer: D

Explanation: See Q29.

#### Question 34

Which of these is a benefit JSON has over XML?

- 1. JSON is more forgiving of poor formatting
- 2. JSON has less markup and is therefore lighter
- 3. JSON can be written poorly and still be parsed
- 4. JSON must be stored in a file to be sent remotely

#### Answer: B

Explanation: JSON's syntax is terser than XML's tag-based format, making it more lightweight.

## Question 35

What does JSON stand for?

- 1. JavaScript Object Nomenclature
- 2. JavaScript Objective Notation
- 3. JavaScript Object Notation
- 4. JavaScript Orientated Nomenclature

#### Answer: C

Explanation: JSON derives its name from JavaScript's object literal syntax—JavaScript Object Notation.

#### **Question 37**

Which character is most commonly used in SQL-injection attacks?

- Single quote (')
- 2. Null (NUL) byte
- 3. Less-than sign (<)</pre>
- 4. Greater-than sign (>)

#### Answer: A

Explanation: Injecting an extra ' can prematurely close string literals and manipulate queries.

Which is the best way to define disallowed inputs?

- 1. Allow list
- 2. Block list
- 3. Table indirection
- 4. Escaping

#### Answer: A

Explanation: Whitelisting acceptable input is more secure than blacklisting malicious patterns.

## Question 39

Which languages are the primary targets of cross-site scripting (XSS)?

- **1.** HTML
- 2. SQL
- 3. XSLT
- 4. XPath

## Answer: A

Explanation: XSS attacks inject malicious code into HTML pages that browsers will execute.

## Question 40

Which attack occurs when a malicious user tricks a victim into sending a payload that the server reflects back?

- 1. Reflected XSS
- 2. Persistent XSS
- 3. Basic SQL Injection
- 4. Remote File Inclusion

#### Answer: A

Explanation: In Reflected XSS, the server immediately returns the attacker's input in the response.