

 **Soal Pilihan Ganda – Pengenalan Web Application**

1.

A web application is defined as...

- A. A static webpage that cannot change
 - B. A mobile app installed on a smartphone
 - C. A program accessed through a web browser and runs on a web server**
 - D. A desktop program that doesn't require the internet
-

2.

Which of the following best describes a *Client–Server* model?

- A. Both client and server process data equally
 - B. The server sends requests and the client responds
 - C. The client sends requests and the server processes and responds**
 - D. Both client and server have no interaction
-

3.

Which component is responsible for handling logic and data processing in a web app?

- A. Frontend
 - B. Backend**
 - C. Browser
 - D. CSS
-

4.

Which of the following languages is **NOT** commonly used for backend development?

- A. PHP
 - B. Python
 - C. HTML**
 - D. Node.js
-

5.

What is the main role of the **frontend** in a web application?

- A. To manage the database
 - B. To process HTTP requests
 - C. To provide the visual interface for the user**
 - D. To store login information
-

6.

In the client–server architecture, which part does the user interact with directly?

- A. Database
 - B. Client**
 - C. Server
 - D. File system
-

7.

Which statement best explains the HTTP Request–Response cycle?

- A. The client sends data to the database directly
 - B. The server requests data from the client
 - C. The client requests, the server processes, and then responds**
 - D. The browser sends HTML directly to the database
-

8.

Which of the following correctly represents the order in which a browser loads a web page?

- A. Server → Request → Browser → Response
 - B. Browser → Request → Server → Response → Browser**
 - C. Server → Response → Browser → Request
 - D. Browser → Response → Server → Request
-

9.

What is the default port for **HTTP** protocol?

- A. 21
 - B. 22
 - C. 80**
 - D. 443
-

10.

What is the default port for **HTTPS** protocol?

- A. 25
 - B. 80
 - C. 110
 - D. 443**
-

11.

Which of the following protocols provides **secure** data transmission?

- A. HTTP
- B. HTTPS**

- C. FTP
 - D. SMTP
-

12.

What is the function of a **web server**?

- A. To design user interfaces
 - B. To execute backend scripts and deliver responses**
 - C. To create database tables
 - D. To compress web files
-

13.

Which software package includes Apache, MySQL, and PHP for local web development?

- A. Visual Studio
 - B. XAMPP**
 - C. Notepad++
 - D. GitHub
-

14.

Which of the following components stores data for a web application?

- A. HTML
 - B. Database**
 - C. CSS
 - D. JavaScript
-

15.

Which part of the web architecture is responsible for **displaying** content to users?

- A. Backend
 - B. Database
 - C. Frontend**
 - D. Server
-

16.

In a typical web application, when a user submits a form, the data is sent via:

- A. USB
 - B. HTTP Request**
 - C. File Transfer Protocol
 - D. IP Configuration
-

17.

What happens when a user visits `http://localhost/test.php` in XAMPP?

- A. The file is opened directly from disk without server
 - B. Apache server processes test.php and returns the result**
 - C. Browser compiles PHP code
 - D. MySQL server automatically executes it
-

18.

Which of these statements about **HTTPS** is true?

- A. It uses encryption (SSL/TLS) to protect data**
 - B. It is slower and less secure than HTTP
 - C. It does not require a server
 - D. It is only used for file transfer
-

19.

Which of the following best describes a **static website**?

- A. Content changes based on database updates
 - B. Each page is coded manually and does not change dynamically**
 - C. The website includes user login and dashboard
 - D. The site can store user information
-

20.

In web development, the **browser** acts as...

- A. The database
 - B. The client**
 - C. The backend
 - D. The web server
-

Soal Pilihan Ganda – HTML5 dan Struktur Halaman

1.

What is the purpose of the `<!DOCTYPE html>` declaration in an HTML document?

- A. To start the HTML body section
 - B. To define the version of HTML being used**
 - C. To link external CSS files
 - D. To end the HTML document
-

2.

Which tag represents the root element of an HTML document?

- A. <body>
 - B. <html>**
 - C. <head>
 - D. <title>
-

3.

Which HTML element is used to define the title of a webpage shown in the browser tab?

- A. <meta>
 - B. <head>
 - C. <title>**
 - D. <header>
-

4.

Where is the content that appears on the webpage placed?

- A. <head>
 - B. <title>
 - C. <body>**
 - D. <meta>
-

5.

Which HTML5 element represents navigation links?

- A. <nav>**
 - B. <header>
 - C. <section>
 - D. <aside>
-

6.

Which tag defines an independent self-contained piece of content, such as a blog post?

- A. <section>
 - B. <article>**
 - C. <div>
 - D. <main>
-

7.

Which HTML element is used to group related content together in one logical section?

- A. <article>
- B. <aside>

C. <section>

D. <header>

8.

Which tag defines the footer section of a webpage?

A. <footer>
B. <bottom>

C. <base>
D. <end>

9.

Which of the following is NOT a semantic HTML5 tag?

A. <header>
B. <nav>
C. <div>
D. <article>

10.

Which tag is used to create a hyperlink in HTML?

A. <link>
B. <a>
C. <href>
D. <url>

11.

What attribute of the tag specifies the image file to display?

A. alt
B. src
C. href
D. path

12.

What attribute of the tag provides alternative text if the image cannot load?

A. src
B. alt
C. href
D. title

13.

Which of the following tags is used to create an ordered list?

- A.
 - B. **
 - C. <dl>
 - D.
-

14.

Which form attribute defines the destination URL where the form data will be sent?

- A. action**
 - B. method
 - C. name
 - D. target
-

15.

Which form method hides data from the URL?

- A. GET
 - B. POST**
 - C. SEND
 - D. HIDE
-

16.

Which of the following is the correct way to create a text input field in HTML?

- A. <input type="text">**
 - B. <textinput>
 - C. <input="text">
 - D. <textbox>
-

17.

Which element is used to label a form input field?

- A. <caption>
 - B. <legend>
 - C. <label>**
 - D. <title>
-

18.

What is the difference between id and class attributes?

- A. id is for styling and class for scripting
- B. id can be used multiple times, class only once

C. id must be unique, class can be used by multiple elements

D. They have the same function

19.

Which tag is used to create a table row?

- A. <tr>
 - B. <td>
 - C. <th>
 - D. <table>
-

20.

Which best describes the correct structure of an HTML document?

- A. <html><body><head></head></body></html>
- B. <html><head></head><body></body></html>
- C. <body><head><html></html></head></body>
- D. <head><body><html></html></body></head>

Web Application Architecture – 30 Multiple Choice Questions

1–10: Basic Concepts

1. What is a web application architecture?
 - a) The visual design of a website
 - b) The structure that defines how web app components interact
 - c) The programming language used for a web app
 - d) The user interface of a website

→ Answer: b
2. Which of the following is a key component of web architecture?
 - a) Mobile application
 - b) Web browser
 - c) Operating system
 - d) Network switch

→ Answer: b
3. What are the main parts of a web application?
 - a) Frontend, backend, and database
 - b) User, browser, and cache
 - c) Hardware, software, and user interface
 - d) Server, switch, and cable

→ Answer: a
4. The **frontend** of a web app is also known as the:
 - a) Client side
 - b) Server side

- c) Database side
 - d) Storage layer
- Answer: a
5. The **backend** of a web app is responsible for:
- a) Styling the interface
 - b) Managing user input only
 - c) Processing data and connecting to databases
 - d) Displaying animations
- Answer: c
6. The **database layer** in web architecture stores:
- a) Only CSS files
 - b) Application logic
 - c) **Persistent data such as users, content, and sessions**
 - d) JavaScript code
- Answer: c
7. Which protocol is commonly used to transfer data between client and server?
- a) FTP
 - b) SMTP
 - c) HTTP/HTTPS
 - d) SSH
- Answer: c
8. What does API stand for?
- a) Application Programming Interface
 - b) Advanced Program Integration
 - c) Application Processing Internet
 - d) Automatic Programming Interface
- Answer: a
9. Which of the following is **not** part of a web app architecture?
- a) Load balancer
 - b) Web server
 - c) Mobile OS kernel
 - d) Database server
- Answer: c
10. A **3-tier architecture** consists of:
- a) UI layer, business logic layer, and data layer
 - b) Server, router, and switch
 - c) Browser, cache, and CDN
 - d) HTML, CSS, and JavaScript
- Answer: a
-

11–20: Components and Functionality

11. What is the role of a **web server**?
- a) To store user data

- b) To deliver web pages to clients
- c) To design the web interface
- d) To connect routers

→ **Answer: b**

12. Which of the following is a common **web server**?

- a) Apache
- b) Photoshop
- c) Android Studio
- d) MongoDB

→ **Answer: a**

13. Which component handles **business logic** in an application?

- a) Client
- b) Database
- c) Application server
- d) Router

→ **Answer: c**

14. The **browser** converts HTML, CSS, and JS into:

- a) Binary code
- b) Visual interface
- c) Network packets
- d) Database tables

→ **Answer: b**

15. What is **middleware** in web architecture?

- a) The hardware between servers
- b) Software that connects frontend and backend components
- c) A data visualization tool
- d) A browser plugin

→ **Answer: b**

16. What is the main purpose of **load balancing**?

- a) To increase database size
- b) To distribute traffic evenly among servers
- c) To reduce frontend latency
- d) To handle user authentication

→ **Answer: b**

17. Which type of database is **document-oriented**?

- a) MySQL
- b) PostgreSQL
- c) MongoDB
- d) Oracle

→ **Answer: c**

18. The **RESTful API** uses which protocol?

- a) HTTP
- b) SSH
- c) DNS

d) TCP only

→ Answer: a

19. A **monolithic architecture** means:

- a) The application is divided into multiple small services
- b) All functions are built into one codebase
- c) Each module runs on separate servers
- d) It uses only cloud computing

→ Answer: b

20. A **microservices architecture** is:

- a) A large, single system
- b) A system divided into independent services
- c) Used only for mobile apps
- d) Based on desktop programs

→ Answer: b

21–30: Modern Architecture and Security

21. What is a **serverless architecture**?

- a) An app with no backend
- b) A model where cloud providers manage servers automatically
- c) A system that uses offline storage only
- d) A website hosted on a local computer

→ Answer: b

22. Which architecture allows faster deployment and scaling?

- a) Monolithic
- b) Microservices
- c) Static HTML
- d) Manual hosting

→ Answer: b

23. The **cloud infrastructure** provides:

- a) Physical access to data centers
- b) Scalable and flexible resources for web apps
- c) Manual code execution
- d) No security measures

→ Answer: b

24. What does **CDN** stand for?

- a) Cloud Delivery Network
- b) Content Delivery Network
- c) Central Data Node
- d) Cached Data Network

→ Answer: b

25. A **progressive web app (PWA)** is designed to:

- a) Replace desktop software
- b) Work offline and behave like a native app

- c) Run only on desktop browsers
 - d) Require no frontend
- Answer: b
26. Which of the following helps protect web apps from attacks?
- a) Firewalls
 - b) Code obfuscation
 - c) Data compression
 - d) Lazy loading
- Answer: a
27. **Authentication** ensures that:
- a) Only authorized users can access certain resources
 - b) Data loads faster
 - c) APIs connect automatically
 - d) The UI updates in real time
- Answer: a
28. **HTTPS** is important because it:
- a) Adds more CSS effects
 - b) Encrypts data between client and server
 - c) Reduces server cost
 - d) Speeds up API calls
- Answer: b
29. Which of the following is an example of **frontend technology**?
- a) Node.js
 - b) React.js
 - c) Express.js
 - d) Django
- Answer: b
30. Which of the following is an example of **backend framework**?
- a) Vue.js
 - b) Flask
 - c) Bootstrap
 - d) Tailwind CSS
- Answer: b

31–40: Advanced Concepts & Performance

31. What is the main goal of web application architecture design?
- a) To create beautiful UI animations
 - b) To ensure scalability, reliability, and efficiency
 - c) To reduce database size
 - d) To add more JavaScript libraries
- Answer: b
32. What does **scalability** mean in a web application?
- a) The ability to handle increasing traffic or data
 - b) The process of reducing storage

- c) The design of user interfaces
 - d) The connection between servers and routers
- **Answer: a**
33. Which of the following best describes **caching**?
- a) Deleting unused data from the server
 - b) Temporarily storing frequently accessed data for faster performance
 - c) Encrypting sensitive data
 - d) Storing backups on external drives
- **Answer: b**
34. The **data flow** in a web app architecture usually follows this path:
- a) Database → Frontend → Backend
 - b) Client → Server → Database → Server → Client
 - c) Server → Database → Switch
 - d) Browser → Network → Storage only
- **Answer: b**
35. What is a **reverse proxy** used for?
- a) To prevent JavaScript execution
 - b) To manage client requests before reaching the backend servers
 - c) To speed up CSS rendering
 - d) To translate database queries
- **Answer: b**
36. Which of the following helps improve web app **availability**?
- a) Single-point server
 - b) Redundancy and load balancing
 - c) Manual caching
 - d) Smaller codebase
- **Answer: b**
37. What is **DevOps** in the context of web application development?
- a) A frontend design tool
 - b) A set of practices combining development and operations
 - c) A server programming language
 - d) A database architecture
- **Answer: b**
38. The **data access layer (DAL)** in web architecture is responsible for:
- a) Managing communication between the application and database
 - b) Designing the frontend
 - c) Compressing images
 - d) Handling HTML rendering
- **Answer: a**
39. Which of the following ensures web applications run smoothly across devices?
- a) Static design
 - b) Responsive design
 - c) Manual layout coding
 - d) Server-only rendering
- **Answer: b**
40. What is a **Single Page Application (SPA)**?
- a) A web app that loads multiple pages for each request

- b) A website built only with HTML
- c) A web app that dynamically updates a single page without reloading
- d) An app that works offline only

→ Answer: c

41.

 **Module Test Practice: Introduction to PHP (20 Questions)**

1. What does PHP stand for?

- a) Private Home Page
- b) Personal Hypertext Processor
- c) PHP: Hypertext Preprocessor
- d) Programming Home Page

→ Answer: c

2. PHP is mainly used for:

- a) Designing user interfaces
- b) Creating static web pages
- c) Building dynamic web pages
- d) Creating mobile applications

→ Answer: c

3. PHP code is executed on:

- a) The client's browser
- b) The web server
- c) The operating system
- d) The database directly

→ Answer: b

4. What is the correct way to start a PHP block?

- a) <php>
- b) <?php
- c) <?php?>
- d) <?php start>

→ Answer: b

5. Which of the following displays text in PHP?

- a) echo
- b) write
- c) display
- d) printHTML

→ Answer: a

6. PHP files have the extension:

- a) .html
- b) .xml
- c) .php
- d) .ph

→ Answer: c

7. Which of the following is a valid way to comment in PHP?

- a) // comment
- b) <!-- comment -->
- c) ** comment **
- d) #comment only

→ Answer: a

8. What does the following code output?

```
<?php  
echo "Hello" . " PHP!";  
?>
```

- a) Hello PHP!
- b) "Hello PHP!"
- c) Hello + PHP!
- d) Error message

→ Answer: a

9. Which software can be used to run PHP locally?

- a) WordPress
- b) XAMPP
- c) Android Studio
- d) Photoshop

→ Answer: b

10. PHP is a _____ scripting language.

- a) Server-side
- b) Client-side
- c) Front-end
- d) Compiled

→ Answer: a

11. What is the role of the Apache server in PHP development?

- a) It stores HTML files only
- b) It executes PHP scripts and sends the result to the browser
- c) It compiles PHP code to machine language
- d) It runs JavaScript on the client

→ Answer: b

12. What will happen if you open a PHP file directly in the browser without a server?

- a) It executes normally
- b) It downloads automatically
- c) It shows raw PHP code
- d) It opens in text format

→ Answer: c

13. The function used to print data in PHP is:

- a) echo() or print()
- b) printf() only
- c) display()
- d) show()

→ Answer: a

14. What is the correct way to write a multi-line comment in PHP?

- a) // Comment //
- b) /* Comment block */
- c) <-- Comment -->
- d) # Comment block #

→ Answer: b

15. What will this code display?

```
<?php  
echo 2 + 3;  
?>
```

- a) 5
- b) "2 + 3"
- c) 23
- d) Error

→ Answer: a

16. What is required to process PHP files?

- a) A PHP interpreter
- b) A C++ compiler
- c) A CSS parser
- d) A Java runtime

→ Answer: a

17. PHP can be embedded into which of the following?

- a) HTML
- b) CSS
- c) XML
- d) JSON

→ Answer: a

18. What is the main difference between PHP and JavaScript?

- a) PHP is server-side, JavaScript is client-side
- b) Both are compiled languages
- c) PHP runs faster than JavaScript
- d) JavaScript can access databases directly

→ Answer: a

19. What tag is used to close PHP code?

- a) </php>
- b) ?>
- c) endphp;
- d) stop;

→ Answer: b

20. Which of the following is an advantage of PHP?

- a) It is free and open source
- b) It is used only for mobile apps
- c) It runs only on Linux

d) It does not support databases

→ Answer: a

✳ PHP Syntax, Variables, and Data Types — 30 Multiple Choice Questions

● Level 1 — Basic (1–10)

1. What is the correct opening tag for PHP code?

- a) <php>
- b) <?php
- c) <script>
- d) <p>

→ Answer: b

2. PHP code must end with:

- a) .
- b) ;
- c) :
- d) !

→ Answer: b

3. Which of the following is used to print text in PHP?

- a) display()
- b) show()
- c) echo
- d) output()

→ Answer: c

4. What symbol is used to start a variable in PHP?

- a) @
- b) \$
- c) #
- d) %

→ Answer: b

5. Which of the following is a valid variable name in PHP?

- a) \$1name
- b) \$first-name
- c) \$first_name
- d) first_name

→ Answer: c

6. What will this code output?

```
$x = "Hello";
```

```
$y = "World";
```

```
echo $x . " " . $y;
```

- a) HelloWorld
- b) Hello World
- c) \$x \$y

d) Error

→ Answer: b

7. Which function is used to define a constant in PHP?

- a) set()
- b) define()
- c) constant()
- d) def()

→ Answer: b

8. PHP is a _____ typed language.

- a) Strongly
- b) Loosely
- c) Weakly
- d) Strictly

→ Answer: b

9. What data type is this value "123"?

- a) Integer
- b) Float
- c) String
- d) Boolean

→ Answer: c

10. Which of the following is a Boolean value?

- a) "true"
- b) TRUE
- c) 1
- d) Both b and c

→ Answer: d

🟡 Level 2 — Intermediate (11–20)

11. What will be the output of this code?

```
$a = 10;  
$b = "10";  
echo $a == $b;
```

- a) false
- b) true
- c) 0
- d) Error

→ Answer: b

12. What is the difference between == and === in PHP?

- a) No difference
- b) == compares value only, === compares value and type
- c) == compares type only

d) Both compare type and value

→ **Answer:** b

13. Which operator is used to concatenate two strings?

a) +

b) .

c) &

d) ,

→ **Answer:** b

14. What does this code output?

```
$num = 5;
```

```
$num += 3;
```

```
echo $num;
```

a) 8

b) 53

c) 5 + 3

d) Error

→ **Answer:** a

15. Which of the following functions checks if a variable is an integer?

a) check_int()

b) is_integer()

c) is_int()

d) Both b and c

→ **Answer:** d

16. Which superglobal contains form data sent using POST method?

a) \$_GET

b) \$_POST

c) \$_FORM

d) \$_REQUEST

→ **Answer:** b

17. What is the default value of an uninitialized variable in PHP?

a) 0

b) false

c) null

d) undefined

→ **Answer:** c

18. Which of the following comments is valid in PHP?

a) # This is a comment

b) // This is a comment

c) /* This is a comment */

d) All of the above

→ **Answer:** d

19. What is the correct way to get the type of a variable?

- a) type(\$x)
- b) gettype(\$x)
- c) typeof(\$x)
- d) var_type(\$x)

→ Answer: b

20. What will this code display?

```
$x = "10";
```

```
$y = 5;
```

```
echo $x + $y;
```

- a) 105

- b) 15

- c) Error

- d) 10 + 5

→ Answer: b

● Level 3 — Advanced (21–30)

21. Which of the following is NOT a valid PHP data type?

- a) String
- b) Integer
- c) Decimal
- d) Object

→ Answer: c

22. What does this code output?

```
$a = "Hello";
```

```
$b = &$a;
```

```
$b = "Hi";
```

```
echo $a;
```

- a) Hello

- b) Hi

- c) Error

- d) Undefined

→ Answer: b

23. Which of the following is TRUE about variable scope?

- a) Variables in a function are global by default.
- b) Global variables can be accessed directly inside functions.
- c) global keyword allows function to access external variables.
- d) Variables inside a function are always static.

→ Answer: c

24. What is the result of this code?

```
$x = 0;  
if ($x) {  
    echo "True";  
} else {  
    echo "False";  
}
```

a) True

b) False

c) Error

d) 0

→ Answer: b

25. How do you convert a string "25" into an integer in PHP?

- a) int("25")
- b) (int)"25"
- c) tolnt("25")
- d) integer("25")

→ Answer: b

26. What will var_dump("5" == 5); output?

- a) bool(true)
- b) bool(false)
- c) 1
- d) 0

→ Answer: a

27. What will var_dump("5" === 5); output?

- a) bool(true)
- b) bool(false)
- c) 1
- d) 0

→ Answer: b

28. Which of the following superglobals is used to access session variables?

- a) \$_GLOBAL
- b) \$_SESSION
- c) \$_COOKIE
- d) \$_SERVER

→ Answer: b

29. Which operator returns true only if both conditions are true?

- a) ||
- b) &&
- c) !

d) ==
→ Answer: b

30. What will be the output of this code?

```
$a = "10 apples";
```

```
$b = 5;
```

```
echo $a + $b;
```

- a) 15
- b) 10
- c) Error
- d) "10 apples5"

→ Answer: a

Control Structures in PHP — 30 Multiple Choice Questions

Level 1 — Basic (1–10)

1. Which keyword is used to start an if statement in PHP?

- a) switch
- b) for
- c) if
- d) while

→ Answer: c

2. What is the output of this code?

```
$age = 20;
```

```
if ($age >= 18) echo "Adult";
```

- a) Adult
- b) 20
- c) Error
- d) Nothing

→ Answer: a

3. Which statement runs **if a condition is false?**

- a) if
- b) else
- c) elseif
- d) switch

→ Answer: b

4. Which symbol is used to check equality **value only?**

- a) =
- b) ==
- c) ===
- d) !

→ Answer: b

5. Which operator checks both **value and type?**

- a) =
- b) ==
- c) ===

d) !=

→ Answer: c

6. What is the correct way to write a switch statement?

a) switch(value) { case 1: ... }

b) switch { value: ... }

c) switch(value) ...

d) switch(value);

→ Answer: a

7. What is the purpose of break in a loop or switch?

a) Skip iteration

b) End current iteration and continue

c) Exit loop or switch entirely

d) Pause execution

→ Answer: c

8. What is the output?

\$i = 3;

if (\$i > 5) { echo "Yes"; } else { echo "No"; }

a) Yes

b) No

c) 3

d) Error

→ Answer: b

9. Which of the following is a correct single-line comment?

a) <!-- comment -->

b) // comment

c) /* comment */

d) ** comment **

→ Answer: b

10. What is the minimum times a do...while loop executes?

a) 0

b) 1

c) 2

d) Depends on condition

→ Answer: b

🟡 Level 2 — Intermediate (11–20)

11. What is the output?

\$x = 5;

if (\$x > 3 && \$x < 10) echo "Yes";

a) Yes

b) No

c) 5

d) Error

→ Answer: a

12. What does continue do in a loop?

a) Exits the loop

b) Skips current iteration and continues with next

c) Restarts the loop from beginning

d) Pauses the loop

→ Answer: b

13. Which loop is guaranteed to execute **at least once**?

- a) for
- b) while
- c) do...while
- d) foreach

→ Answer: c

14. What is the output?

```
for ($i = 1; $i <= 3; $i++) { echo $i; }
```

- a) 123
- b) 1 2 3
- c) 1,2,3
- d) 321

→ Answer: a

15. Which statement is used when multiple conditions are checked sequentially?

- a) if
- b) switch
- c) if...elseif...else
- d) for

→ Answer: c

16. Which loop is best suited to iterate **over an array**?

- a) while
- b) do...while
- c) for
- d) foreach

→ Answer: d

17. What is the output?

```
$x = 10;  
$y = 5;  
if ($x > 5 || $y > 10) echo "True";  
a) True  
b) False  
c) 10  
d) Error
```

→ Answer: a

18. Which of the following operators reverses a boolean value?

- a) &&
- b) ||
- c) !
- d) ==

→ Answer: c

19. What is printed by this code?

```
$score = 75;  
if ($score >= 90) echo "A";  
elseif ($score >= 70) echo "B";  
else echo "C";
```

- a) A
- b) B
- c) C
- d) Error

→ Answer: b

20. Which keyword is used to **end a case** in a switch statement?

- a) end
- b) stop
- c) break
- d) exit

→ Answer: c

● Level 3 — Advanced (21–30)

21. Output of nested loop?

```
for ($i=1;$i<=2;$i++) {  
    for ($j=1;$j<=2;$j++) {  
        echo "$i$j ";  
    }  
}
```

- a) 11 12 21 22
- b) 12 21 22 11
- c) 1 2 1 2
- d) Error

→ Answer: a

22. Which is TRUE about if and switch?

- a) if can evaluate ranges, switch evaluates discrete values
- b) switch can evaluate ranges, if cannot
- c) Both cannot evaluate ranges
- d) Both evaluate only discrete values

→ Answer: a

23. What is output?

```
$i=0;  
while ($i<3) { echo $i; $i++; }  
a) 0 1 2  
b) 012  
c) 123  
d) Error
```

→ Answer: b

24. What happens when break is used inside nested loops?

- a) Exits inner loop only
- b) Exits all loops
- c) Exits outer loop only
- d) Skips iteration

→ Answer: a

25. What is printed?

```
$i=1;  
do { echo $i; $i++; } while($i>5);
```

- a) 0
b) 1
c) 12345
d) Error
→ Answer: b

26. What is output?
`for($i=1;$i<=5;$i++) {
 if($i==3) continue;
 echo $i;
}
a) 12345
b) 1245
c) 345
d) 12
→ Answer: b`

27. Which of the following?
a) if...elseif
b) switch
c) for loop
d) while loop
→ Answer: b

28. What is printed?
`$day="Friday";
switch($day) {
 case "Monday": echo "
 case "Friday": echo "
 default: echo "Other"
}
a) Start
b) Weekend
c) Other
d) Error
→ Answer: b`

29. Output of nested if?
`$x=5;
if($x>0){
 if($x<10) echo "Yes";
}
a) No
b) Yes
c) Error
d) 5
→ Answer: b`

30. Which statement allows multiple conditions?
a) if...endif;
b) if(){}
c) switch(){}
→ Answer: b

d) while(){}
→ Answer: a

31. Output Prediction

```
$x = 4;  
if ($x % 2 == 0) {  
    echo "Even";  
} else {  
    echo "Odd";  
}  
  
a) Even  
b) Odd  
c) 4  
d) Error  
→ Answer: a
```

32. For Loop Output

```
for($i=1; $i<=3; $i++){  
    echo $i * 2;  
}  
  
a) 2 4 6  
b) 1 2 3  
c) 2 4 6 8  
d) Error  
→ Answer: a
```

33. While Loop Logic

```
$i = 1;  
while($i <= 3){  
    echo $i;  
    $i++;  
}  
  
a) 123  
b) 1 2 3  
c) 012
```

d) Error

→ Answer: a

34. Do-While Minimum Execution

```
$i = 5;
```

```
do {
```

```
    echo $i;
```

```
    $i++;
```

```
} while($i < 5);
```

a) 5

b) 6

c) 0

d) Nothing

→ Answer: a

35. Nested Loop Output

```
for($i=1; $i<=2; $i++){  
    for($j=1; $j<=2; $j++){  
        echo $i.$j." ";  
    }  
}
```

a) 11 12 21 22

b) 12 21 22 11

c) 1 2 1 2

d) Error

→ Answer: a

36. Switch Statement

```
$fruit = "Apple";  
  
switch($fruit){  
    case "Banana": echo "Yellow"; break;  
    case "Apple": echo "Red"; break;  
    default: echo "Unknown";  
}
```

- a) Yellow
- b) Red
- c) Unknown
- d) Error

→ Answer: b

37. Continue Keyword

```
for($i=1; $i<=5; $i++){  
    if($i==3) continue;  
    echo $i;  
}
```

- a) 12345
- b) 1245
- c) 135
- d) 12

→ Answer: b

38. Break Keyword

```
for($i=1; $i<=5; $i++){  
    if($i==4) break;  
    echo $i;  
}
```

- a) 1234
- b) 123
- c) 145
- d) 1

→ Answer: b

39. If-Else Nested

```
$score = 85;  
if($score >= 90){  
    echo "A";  
} elseif($score >= 80){  
    echo "B";  
} else {
```

```
echo "C";
}
```

- a) A
- b) B
- c) C
- d) Error

→ Answer: b

40. Foreach Loop

```
$colors = ["Red","Green","Blue"];
foreach($colors as $c){
    echo $c[0];
}
```

- a) RGB
- b) Red Green Blue
- c) R G B
- d) 123

→ Answer: a