

1. What does PHP stand for?

- A) Personal Home Page
- B) PHP: Hypertext Preprocessor
- C) Preprocessed Hypertext Page
- D) Preprocessor Home Page

Answer: B) PHP: Hypertext Preprocessor

2. PHP scripts are executed on the ____.

- A) Client
- B) Server
- C) Browser
- D) Compiler

Answer: B) Server

3. Which of the following is a valid way to start a PHP script?

- A) <php>
- B) <?php>
- C) php>
- D) <script>

Answer: B) <?php>

4. PHP is a ____ language.

- A) Compiled
- B) Interpreted
- C) Markup
- D) Declarative

Answer: B) Interpreted

5. Which of the following is the correct way to declare a variable in PHP?

- A) `$variable = "value";`
- B) `variable = "value";`
- C) `var variable = "value";`
- D) `let $variable = "value";`

Answer: A) `$variable = "value";`

6. What is the correct way to end a PHP statement?

- A) `.`
- B) `:`
- C) `;`
- D) `,`

Answer: C) `;`

7. Which of the following is NOT a data type in PHP?

- A) String
- B) Float
- C) Character
- D) Boolean

Answer: C) Character

8. PHP files have the extension:

- A) `.php`
- B) `.ph`
- C) `.html`
- D) `.xml`

Answer: A) `.php`

9. How do you output text in PHP?

- A) `print("text");`
- B) `echo "text";`
- C) `write("text");`
- D) Both A and B

Answer: D) Both A and B

10. What is the default file extension of PHP files?

- A) `.ph`
- B) `.php`
- C) `.phppp`
- D) `.phtml`

Answer: B) `.php`

11. Which of the following is a superglobal variable in PHP?

- A) `$GLOBALS`
- B) `$_POST`
- C) `$_SESSION`
- D) All of the above

Answer: D) All of the above

12. How can you add a comment in PHP?

- A) `# This is a comment`
- B) `// This is a comment`
- C) `/* This is a comment */`
- D) All of the above

Answer: D) All of the above

13. Which function is used to get the length of a string in PHP?

- A) `strlen()`
- B) `strlength()`
- C) `len()`
- D) `string_length()`

Answer: A) `strlen()`

14. How do you define a constant in PHP?

- A) `const NAME = "value";`
- B) `define("NAME", "value");`
- C) `$NAME = "value";`
- D) Both A and B

Answer: D) Both A and B

15. PHP is ____ typed.

- A) Strongly
- B) Weakly
- C) Dynamically
- D) Both B and C

Answer: D) Both B and C

16. What is the correct way to start a session in PHP?

- A) `begin_session();`
- B) `session_start();`
- C) `start_session();`
- D) `session_begin();`

Answer: B) `session_start();`

17. What will `echo (5 == "5");` output?

- A) Error
- B) True
- C) False
- D) 1

Answer: D) 1

18. Which of the following is a PHP loop?

- A) `for`
- B) `while`
- C) `do-while`
- D) All of the above

Answer: D) All of the above

19. How do you terminate a PHP script execution?

- A) `break;`
- B) `exit();`
- C) `die();`
- D) Both B and C

Answer: D) Both B and C

1. Who is the creator of PHP?

- A) Dennis Ritchie
- B) Rasmus Lerdorf
- C) James Gosling
- D) Guido van Rossum

Answer: B) Rasmus Lerdorf

2. In which year was PHP created?

- A) 1990
- B) 1995
- C) 2000
- D) 1989

Answer: B) 1995

3. What was the original name of PHP?

- A) Personal Home Page
- B) PHP Script
- C) PHP Code
- D) Preprocessor Script

Answer: A) Personal Home Page

4. Which of the following best describes PHP in its early stages?

- A) A general-purpose programming language
- B) A tool for creating static HTML pages
- C) A simple set of Common Gateway Interface (CGI) binaries
- D) A database management system

Answer: C) A simple set of Common Gateway Interface (CGI) binaries

5. PHP is primarily used for ____.

- A) System programming
- B) Web development
- C) Game development
- D) Data analysis

Answer: B) Web development

6. When did PHP become an open-source project?

- A) 1995
- B) 1997
- C) 2000
- D) 1999

Answer: B) 1997

7. Which version of PHP introduced the Zend Engine?

- A) PHP 3
- B) PHP 4
- C) PHP 5
- D) PHP 6

Answer: B) PHP 4

8. What was the major contribution of PHP 3?

- A) Object-oriented programming
- B) Introduction of Zend Engine
- C) Cross-platform compatibility and a new parser
- D) Improved security

Answer: C) Cross-platform compatibility and a new parser

9. What does "PHP" stand for now?

- A) Personal Home Page
- B) PHP Hypertext Preprocessor
- C) Programming Home Page
- D) Preprocessor Hypertext Page

Answer: B) PHP Hypertext Preprocessor

10. Who developed the Zend Engine for PHP?

- A) Rasmus Lerdorf
- B) Zeev Suraski and Andi Gutmans
- C) Brendan Eich
- D) James Gosling

Answer: B) Zeev Suraski and Andi Gutmans

11. In which year was PHP 5 released?

- A) 2002
- B) 2004
- C) 2006
- D) 2008

Answer: B) 2004

12. Which of the following is a significant feature introduced in PHP 5?

- A) Namespaces
- B) Object-oriented programming
- C) Anonymous functions
- D) Support for multicore processors

Answer: B) Object-oriented programming

13. What was the major reason behind the development of PHP 3?

- A) To add database functionality
- B) To rewrite PHP as a fully object-oriented language
- C) To rewrite the parser for more robust and extensible language
- D) To improve execution speed

Answer: C) To rewrite the parser for more robust and extensible language

14. PHP originally started as a set of CGI binaries written in ____.

- A) C++
- B) Python
- C) Perl
- D) C

Answer: D) C

15. When was PHP 7 released?

- A) 2012
- B) 2014
- C) 2015
- D) 2016

Answer: C) 2015

16. What was the main improvement in PHP 7 over PHP 5?

- A) Introduction of namespaces
- B) Improved performance with the new Zend Engine (PHPNG)
- C) Support for multicore processors
- D) Built-in database support

Answer: B) Improved performance with the new Zend Engine (PHPNG)

17. What does Zend Engine do in PHP?

- A) Acts as a web server
- B) Compiles PHP code into bytecode
- C) Processes HTML files
- D) Provides database support

Answer: B) Compiles PHP code into bytecode

18. Which company was co-founded by the developers of the Zend Engine?

- A) Zend Technologies
- B) PHP Inc.
- C) Oracle
- D) MySQL

Answer: A) Zend Technologies

19. Which version of PHP discontinued support for PHP 4-style constructors?

- A) PHP 5.3
- B) PHP 5.4

- C) PHP 7.0
- D) PHP 8.0

Answer: C) PHP 7.0

20. Why was PHP 6 never officially released?

- A) Lack of funding
- B) Too many unresolved bugs
- C) Failure to properly implement Unicode support
- D) Disagreement among developers

Answer: C) Failure to properly implement Unicode support

1. Which version of PHP introduced object-oriented programming (OOP) features?

- A) PHP 2
- B) PHP 3
- C) PHP 4
- D) PHP 5

Answer: D) PHP 5

2. Which PHP version introduced the Zend Engine?

- A) PHP 3
- B) PHP 4
- C) PHP 5
- D) PHP 7

Answer: B) PHP 4

3. What was the main improvement in PHP 7 over PHP 5?

- A) Introduction of anonymous functions
- B) Improved performance with the PHPNG engine
- C) Deprecated MySQL extension
- D) Support for dynamic typing

Answer: B) Improved performance with the PHPNG engine

4. Which PHP version officially introduced namespaces?

- A) PHP 5.1
- B) PHP 5.3
- C) PHP 5.4
- D) PHP 7.0

Answer: B) PHP 5.3

5. In which year was PHP 5 released?

- A) 2000
- B) 2004
- C) 2006
- D) 2008

Answer: B) 2004

6. Which PHP version discontinued support for PHP 4-style constructors?

- A) PHP 5.6
- B) PHP 7.0
- C) PHP 7.2
- D) PHP 8.0

Answer: B) PHP 7.0

7. PHP 6 was planned to introduce which of the following features?

- A) Multithreading support
- B) Unicode support
- C) Improved security mechanisms
- D) Anonymous functions

Answer: B) Unicode support

8. What was the reason PHP 6 was never officially released?

- A) Lack of funding
- B) Issues with Unicode implementation
- C) Failure of the Zend Engine
- D) Community disagreement

Answer: B) Issues with Unicode implementation

9. When was PHP 7 officially released?

- A) 2013
- B) 2014
- C) 2015
- D) 2016

Answer: C) 2015

10. Which PHP version introduced the `declare(strict_types=1)` directive?

- A) PHP 5.6
- B) PHP 7.0
- C) PHP 7.2
- D) PHP 8.0

Answer: B) PHP 7.0

11. PHP 4 was officially released in ____.

- A) 1998
- B) 1999
- C) 2000
- D) 2001

Answer: C) 2000

12. Which feature was added in PHP 5.5?

- A) Generators and `yield`
- B) Type declarations
- C) JIT compilation
- D) Traits

Answer: A) Generators and `yield`

13. What is the default PHP version used in most modern environments as of 2025?

- A) PHP 7.4
- B) PHP 8.0
- C) PHP 8.2
- D) PHP 8.4

Answer: C) PHP 8.2

14. Which PHP version introduced the `match` expression?

- A) PHP 7.4
- B) PHP 8.0
- C) PHP 8.1
- D) PHP 8.2

Answer: B) PHP 8.0

15. What is one key feature introduced in PHP 8.0?

- A) Anonymous functions
- B) Named arguments
- C) Unicode support
- D) Traits

Answer: B) Named arguments

16. PHP 8.1 introduced which of the following features?

- A) JIT compilation
- B) Fibers
- C) Match expression
- D) Generators

Answer: B) Fibers

17. Which version of PHP introduced support for scalar type declarations?

- A) PHP 5.6
- B) PHP 7.0
- C) PHP 7.1
- D) PHP 8.0

Answer: B) PHP 7.0

18. What was the major performance enhancement introduced in PHP 8.0?

- A) Match expressions
- B) JIT (Just-In-Time) compilation
- C) Error handling improvements
- D) Improved OOP model

Answer: B) JIT (Just-In-Time) compilation

19. Which PHP version deprecated the `magic_quotes` directive?

- A) PHP 5.2
- B) PHP 5.3
- C) PHP 5.4
- D) PHP 7.0

Answer: C) PHP 5.4

20. PHP 5.6 introduced which important feature?

- A) Variadic functions (. . .)
- B) Traits
- C) Anonymous functions
- D) Scalar type declarations

Answer: A) Variadic functions (. . .)

1. Which PHP version introduced support for anonymous classes?

- A) PHP 5.6
- B) PHP 7.0
- C) PHP 7.1
- D) PHP 8.0

Answer: B) PHP 7.0

2. What feature was introduced in PHP 7.1?

- A) Null coalescing operator
- B) Nullable types
- C) Named arguments
- D) JIT compilation

Answer: B) Nullable types

3. When was PHP 8.0 officially released?

- A) November 2019
- B) December 2020
- C) October 2021
- D) January 2022

Answer: B) December 2020

4. Which PHP version introduced the spaceship operator (<=>)?

- A) PHP 5.6
- B) PHP 7.0
- C) PHP 7.3
- D) PHP 8.0

Answer: B) PHP 7.0

5. What is the purpose of the JIT (Just-In-Time) compilation introduced in PHP 8.0?

- A) To improve error reporting
- B) To enhance runtime performance by compiling bytecode into machine code
- C) To add better debugging tools
- D) To allow multithreading in PHP scripts

Answer: B) To enhance runtime performance by compiling bytecode into machine code

6. Which PHP version removed support for the `ereg` functions?

- A) PHP 5.3
- B) PHP 5.5
- C) PHP 5.6
- D) PHP 7.0

Answer: A) PHP 5.3

7. Which of the following was introduced in PHP 7.2?

- A) Object type hinting
- B) Libsodium for cryptography
- C) Nullable types
- D) Match expressions

Answer: B) Libsodium for cryptography

8. Which PHP version introduced the `finally` keyword for exception handling?

- A) PHP 5.3
- B) PHP 5.5
- C) PHP 7.0
- D) PHP 8.0

Answer: B) PHP 5.5

9. Which PHP version introduced union types?

- A) PHP 7.4
- B) PHP 8.0
- C) PHP 7.1
- D) PHP 8.1

Answer: B) PHP 8.0

10. What feature was added in PHP 7.3?

- A) Array destructuring
- B) Trailing commas in function calls
- C) Match expressions
- D) Fibers

Answer: B) Trailing commas in function calls

1. PHP is a ____.

- A) Client-side scripting language
- B) Server-side scripting language
- C) Markup language
- D) Database

Answer: B) Server-side scripting language

2. Which of the following is true about PHP?

- A) PHP scripts are executed on the server.
- B) PHP can only run on Linux systems.
- C) PHP is a client-side language like JavaScript.
- D) PHP requires a compiler to execute scripts.

Answer: A) PHP scripts are executed on the server.

3. PHP is compatible with ____.

- A) Windows
- B) macOS
- C) Linux
- D) All of the above

Answer: D) All of the above

4. Which of the following features of PHP allows it to connect to databases?

- A) File handling
- B) Session handling
- C) Database integration
- D) Error handling

Answer: C) Database integration

5. What is the full form of PHP?

- A) Personal Hypertext Preprocessor
- B) PHP Hypertext Processor
- C) PHP Hypertext Preprocessor
- D) Programming Hypertext Processor

Answer: C) PHP Hypertext Preprocessor

6. PHP is a ____.

- A) Strongly typed language
- B) Loosely typed language
- C) Statically typed language
- D) High-level compiled language

Answer: B) Loosely typed language

7. PHP supports ____.

- A) Object-Oriented Programming
- B) Procedural Programming
- C) Both A and B
- D) None of the above

Answer: C) Both A and B

8. PHP can be embedded into ____.

- A) Python
- B) HTML
- C) CSS
- D) Java

Answer: B) HTML

9. PHP code is enclosed within ____.

- A) <php></php>
- B) <?php ?>

- C) `<code></code>`
- D) `<script></script>`

Answer: B) `<?php ?>`

10. Which of the following extensions is used for PHP files?

- A) .html
- B) .php
- C) .txt
- D) .xml

Answer: B) .php

11. PHP can be used to handle ____.

- A) Forms
- B) Files
- C) Cookies
- D) All of the above

Answer: D) All of the above

12. PHP is an interpreted language, meaning ____.

- A) It needs to be compiled before running
- B) It is executed line by line by the server
- C) It runs directly on the browser
- D) It doesn't require a web server

Answer: B) It is executed line by line by the server

13. Which of the following is a valid PHP function for sending emails?

- A) `mail()`
- B) `sendMail()`

- C) `email()`
- D) `php_mail()`

Answer: A) `mail()`

14. PHP scripts can be executed with ____.

- A) Apache
- B) IIS
- C) Nginx
- D) All of the above

Answer: D) All of the above

15. Which PHP version introduced object-oriented programming (OOP) features?

- A) PHP 3
- B) PHP 4
- C) PHP 5
- D) PHP 7

Answer: C) PHP 5

16. PHP supports which type of databases?

- A) MySQL
- B) PostgreSQL
- C) SQLite
- D) All of the above

Answer: D) All of the above

17. The default port for PHP's built-in web server is ____.

- A) 80
- B) 8080

- C) 8888
- D) 9000

Answer: B) 8080

18. PHP supports file handling functions such as ____.

- A) `fopen()`
- B) `fread()`
- C) `fwrite()`
- D) All of the above

Answer: D) All of the above

19. PHP scripts must be executed on ____.

- A) A web browser
- B) A web server
- C) A text editor
- D) An IDE

Answer: B) A web server

20. PHP is open-source, which means ____.

- A) It is only available for Linux systems
- B) It is free and its source code is publicly available
- C) It is closed and proprietary
- D) It can only be modified by licensed developers

Answer: B) It is free and its source code is publicly available

21. Which superglobal variable is used to collect form data in PHP?

- A) `$_GET`
- B) `$_POST`
- C) Both A and B
- D) `$_FORM`

Answer: C) Both A and B

22. PHP supports which type of loops?

- A) for
- B) while
- C) foreach
- D) All of the above

Answer: D) All of the above

23. PHP sessions are used for ____.

- A) Encrypting data
- B) Storing user data across multiple pages
- C) Validating user input
- D) None of the above

Answer: B) Storing user data across multiple pages

24. Which PHP function is used to check the data type of a variable?

- A) `gettype()`
- B) `is_type()`
- C) `checktype()`
- D) `variabletype()`

Answer: A) `gettype()`

25. PHP can generate ____.

- A) PDF files
- B) Images
- C) XML files
- D) All of the above

Answer: D) All of the above

26. Which PHP feature is used to restrict unauthorized access to web pages?

- A) Error handling
- B) Authentication and Authorization
- C) File handling
- D) Cookies

Answer: B) Authentication and Authorization

27. PHP uses which of the following encryption functions?

- A) `md5()`
- B) `sha1()`
- C) `hash()`
- D) All of the above

Answer: D) All of the above

28. PHP is case-sensitive for ____.

- A) Functions
- B) Variables
- C) Constants
- D) None of the above

Answer: B) Variables

29. Which PHP function is used to terminate script execution?

- A) `stop()`
- B) `exit()`
- C) `terminate()`
- D) `end()`

Answer: B) `exit()`

30. PHP supports which type of array?

- A) Indexed arrays
- B) Associative arrays
- C) Multidimensional arrays
- D) All of the above

Answer: D) All of the above

31. Which PHP feature provides error handling?

- A) try-catch blocks
- B) Error constants (E_WARNING, E_NOTICE)
- C) Custom error handlers
- D) All of the above

Answer: D) All of the above

32. What does `isset()` do in PHP?

- A) Checks if a variable is empty
- B) Checks if a variable is defined
- C) Checks if a variable is set and is not null
- D) Checks if a variable is numeric

Answer: C) Checks if a variable is set and is not null

1. What makes PHP more suitable for web development compared to other scripting languages?

- A) Its ability to create mobile applications
- B) Built-in support for web-specific tasks like handling forms and interacting with databases
- C) It is slower than other languages
- D) It cannot be embedded into HTML

Answer: B) Built-in support for web-specific tasks like handling forms and interacting with databases

2. Which of the following is an advantage of PHP over other server-side scripting languages like JSP or ASP.NET?

- A) PHP is platform-dependent
- B) PHP is open-source and free to use
- C) PHP has poor community support
- D) PHP does not support object-oriented programming

Answer: B) PHP is open-source and free to use

3. PHP is highly compatible with which of the following databases?

- A) MySQL
- B) Oracle
- C) PostgreSQL
- D) All of the above

Answer: D) All of the above

4. Which of the following is a key advantage of PHP over JavaScript?

- A) PHP can only run on the server
- B) PHP supports dynamic web page creation on the server side
- C) PHP runs on the browser
- D) PHP does not support databases

Answer: B) PHP supports dynamic web page creation on the server side

5. Why is PHP considered faster than other scripting languages like Python or Ruby?

- A) It is compiled rather than interpreted
- B) It uses the Zend Engine, which is optimized for web tasks
- C) It does not support complex operations
- D) It does not require any server to execute

Answer: B) It uses the Zend Engine, which is optimized for web tasks

6. Which of the following is a benefit of PHP's loose typing feature?

- A) PHP always requires variable declaration
- B) PHP automatically converts variable types based on context
- C) PHP only supports integers and strings
- D) PHP is harder to debug

Answer: B) PHP automatically converts variable types based on context

7. What makes PHP a preferred choice over ASP.NET for small businesses and startups?

- A) PHP is proprietary software
- B) PHP is cheaper to host and maintain
- C) PHP has no frameworks available
- D) PHP does not support databases

Answer: B) PHP is cheaper to host and maintain

8. Which of the following makes PHP more flexible compared to JSP?

- A) PHP only supports Windows
- B) PHP can be used with multiple web servers like Apache, Nginx, and IIS
- C) PHP lacks database integration
- D) PHP does not support error handling

Answer: B) PHP can be used with multiple web servers like Apache, Nginx, and IIS

9. Why is PHP considered easier to learn compared to other scripting languages like Python or Ruby?

- A) PHP has a simple and straightforward syntax
- B) PHP requires deep knowledge of computer science
- C) PHP only supports procedural programming
- D) PHP requires a special IDE to run

Answer: A) PHP has a simple and straightforward syntax

10. Which advantage does PHP have over Perl for web development?

- A) PHP is slower than Perl
- B) PHP is designed specifically for web development, while Perl is more general-purpose
- C) PHP lacks built-in database support
- D) PHP does not support regular expressions

Answer: B) PHP is designed specifically for web development, while Perl is more general-purpose

11. PHP's compatibility with various operating systems is an advantage because ____.

- A) It can only run on Windows
- B) It can run on Linux, Windows, macOS, and more
- C) It is restricted to Linux servers
- D) It needs a specific environment to execute

Answer: B) It can run on Linux, Windows, macOS, and more

12. Which of the following is an advantage of PHP over Python in web development?

- A) PHP is not suitable for web development
- B) PHP has a larger number of web-specific libraries and tools
- C) PHP does not have any community support
- D) PHP is slower than Python

Answer: B) PHP has a larger number of web-specific libraries and tools

13. PHP's ability to embed directly into HTML provides which advantage?

- A) Easier integration with web pages
- B) Faster execution than compiled languages
- C) Higher memory consumption
- D) Requires additional software to run

Answer: A) Easier integration with web pages

14. What makes PHP cost-effective compared to other scripting languages?

- A) PHP is open-source and does not require licensing fees
- B) PHP is only available on premium servers
- C) PHP requires a special software to use
- D) PHP does not support open-source tools

Answer: A) PHP is open-source and does not require licensing fees

15. Why is PHP considered highly scalable?

- A) PHP cannot handle a large number of requests
- B) PHP supports frameworks like Laravel and CodeIgniter for building scalable applications
- C) PHP does not support advanced web development features
- D) PHP lacks integration with modern databases

Answer: B) PHP supports frameworks like Laravel and CodeIgniter for building scalable applications

16. Which of the following makes PHP advantageous for handling large projects?

- A) Built-in error handling
- B) Framework support like Laravel and Symfony
- C) Compatibility with various databases
- D) All of the above

Answer: D) All of the above

17. PHP is faster than languages like Python for web development because ____.

- A) PHP scripts are compiled into machine code
- B) PHP is optimized for web servers and dynamic content generation
- C) PHP lacks support for advanced programming features
- D) PHP does not interact with databases

Answer: B) PHP is optimized for web servers and dynamic content generation

18. PHP's wide adoption is supported by ____.

- A) A small developer community
- B) Extensive documentation and tutorials

- C) The lack of a framework ecosystem
- D) No open-source tools

Answer: B) Extensive documentation and tutorials

19. PHP supports cross-platform development because ____.

- A) It is limited to one platform
- B) It runs on all major operating systems and servers
- C) It is only compatible with proprietary software
- D) It does not integrate with modern tools

Answer: B) It runs on all major operating systems and servers

20. Why is PHP preferred for CMS development?

- A) PHP does not support CMS development
- B) Most popular CMSs like WordPress, Drupal, and Joomla are written in PHP
- C) PHP lacks dynamic content features
- D) PHP does not integrate with web servers

Answer: B) Most popular CMSs like WordPress, Drupal, and Joomla are written in PHP

21. Why is PHP highly compatible with cloud services?

- A) PHP can only run on local servers
- B) PHP can interact with cloud APIs and services like AWS, Google Cloud, and Azure
- C) PHP requires proprietary software for cloud integration
- D) PHP does not support modern cloud features

Answer: B) PHP can interact with cloud APIs and services like AWS, Google Cloud, and Azure

22. What makes PHP a good choice for e-commerce platforms?

- A) Lack of security features
- B) Support for payment gateways, shopping carts, and dynamic content generation
- C) PHP is not suitable for e-commerce websites
- D) PHP requires additional tools for every feature

Answer: B) Support for payment gateways, shopping carts, and dynamic content generation

23. Which feature of PHP makes it faster in web development compared to Java?

- A) PHP does not require compilation
- B) PHP lacks advanced programming concepts
- C) PHP is limited to procedural programming
- D) PHP cannot handle complex applications

Answer: A) PHP does not require compilation

24. PHP is widely used for web development because ____.

- A) It has built-in functions for common web tasks like handling forms and cookies
- B) It lacks compatibility with databases
- C) It is only compatible with specific operating systems
- D) It is only suitable for small projects

Answer: A) It has built-in functions for common web tasks like handling forms and cookies

25. Which advantage does PHP offer for website hosting?

- A) PHP websites require expensive hosting services
- B) PHP websites can be hosted on nearly any web server, making it cost-effective
- C) PHP websites only run on IIS
- D) PHP hosting lacks scalability

Answer: B) PHP websites can be hosted on nearly any web server, making it cost-effective

26. Why is PHP considered a flexible language?

- A) PHP supports only one programming paradigm
- B) PHP can be written using both procedural and object-oriented programming styles
- C) PHP cannot interact with external APIs
- D) PHP does not allow dynamic content creation

Answer: B) PHP can be written using both procedural and object-oriented programming styles

27. Which of the following makes PHP easy to debug?

- A) PHP does not support error messages
- B) PHP has built-in error reporting functions like `error_reporting()` and `var_dump()`
- C) PHP cannot display runtime errors
- D) PHP errors require third-party debugging tools

Answer: B) PHP has built-in error reporting functions like `error_reporting()` and `var_dump()`

28. Why is PHP preferred for dynamic content creation compared to static HTML?

- A) PHP allows server-side content generation based on user input or database data
- B) PHP is not suitable for dynamic content
- C) PHP lacks integration with web servers
- D) PHP is slower than static HTML

Answer: A) PHP allows server-side content generation based on user input or database data

29. PHP provides better security features compared to other scripting languages because ____.

- A) It does not require any security implementation
- B) It has built-in functions for encryption, sanitization, and secure sessions
- C) PHP cannot handle user authentication
- D) PHP lacks modern security features

Answer: B) It has built-in functions for encryption, sanitization, and secure sessions

30. PHP's wide library and framework support, like Laravel and CodeIgniter, is advantageous because ____.

- A) It reduces development time by providing pre-built functionalities
- B) PHP lacks support for modern web development
- C) PHP frameworks are not open-source
- D) PHP frameworks increase the complexity of development

Answer: A) It reduces development time by providing pre-built functionalities

1. What is the minimum RAM requirement for running PHP on a server?

- A) 128 MB
- B) 256 MB
- C) 512 MB
- D) 1 GB

Answer: B) 256 MB

2. Which operating system is NOT supported by PHP?

- A) Windows
- B) Linux
- C) macOS
- D) None of the above

Answer: D) None of the above

3. Which of the following is required to run PHP scripts?

- A) A web server like Apache or Nginx
- B) A database management system
- C) A C++ compiler
- D) An FTP server

Answer: A) A web server like Apache or Nginx

4. What is the default port used by Apache web server for PHP?

- A) 22
- B) 443
- C) 80
- D) 3306

Answer: C) 80

5. What is the full form of WAMP?

- A) Windows, Apache, MySQL, PHP
- B) Windows, Apache, MongoDB, Python
- C) Windows, Angular, MySQL, PHP
- D) None of the above

Answer: A) Windows, Apache, MySQL, PHP

6. Which of the following packages is commonly used for PHP installation on macOS?

- A) WAMP
- B) LAMP
- C) XAMPP
- D) MAMP

Answer: D) MAMP

7. Which command is used to check the installed PHP version in the terminal?

- A) php --version
- B) phpinfo
- C) php -v
- D) php --v

Answer: C) php -v

8. PHP can be configured to work with which of the following web servers?

- A) Apache
- B) Nginx
- C) Microsoft IIS
- D) All of the above

Answer: D) All of the above

9. Which PHP configuration file is used to set default settings?

- A) php.ini
- B) php.conf
- C) httpd.conf
- D) config.php

Answer: A) php.ini

10. In which directory is the php.ini file usually located?

- A) /usr/local/bin
- B) /etc/php
- C) /var/www/html
- D) /home/php

Answer: B) /etc/php

11. Which software package includes PHP, MySQL, and Apache for all operating systems?

- A) XAMPP
- B) LAMP
- C) MAMP
- D) AMPPS

Answer: A) XAMPP

12. What does the "L" in LAMP stand for?

- A) Linux
- B) Light
- C) Localhost
- D) Library

Answer: A) Linux

13. What is the purpose of the `phpinfo()` function?

- A) To display PHP syntax errors
- B) To display the current PHP configuration
- C) To debug PHP code
- D) To manage PHP sessions

Answer: B) To display the current PHP configuration

14. Which database is most commonly used with PHP?

- A) PostgreSQL
- B) MySQL
- C) Oracle
- D) MongoDB

Answer: B) MySQL

15. What is the command to restart Apache on a Linux system?

- A) sudo service apache restart
- B) sudo systemctl restart apache2
- C) apache -r
- D) restart_apache

Answer: B) sudo systemctl restart apache2

16. PHP can be used with which of the following text editors for coding?

- A) Notepad++
- B) VS Code
- C) Sublime Text
- D) All of the above

Answer: D) All of the above

17. What is the default extension for PHP files?

- A) .phpx
- B) .php

- C) .phps
- D) .ph

Answer: B) .php

18. Which function is used to load the PHP configuration details?

- A) config_info()
- B) phpinfo()
- C) load_config()
- D) system_info()

Answer: B) phpinfo()

19. How can PHP be installed on Ubuntu Linux?

- A) Using the `apt-get` command
- B) Using the `brew` command
- C) Using the `yum` command
- D) None of the above

Answer: A) Using the `apt-get` command

20. What is the PHP configuration file responsible for?

- A) Managing server-side logic
- B) Setting PHP directives and runtime configuration
- C) Displaying user interface
- D) Handling database connections

Answer: B) Setting PHP directives and runtime configuration

MCQs on PHP Data Types

1. How many primary data types are there in PHP?

- A) 4
- B) 6
- C) 8
- D) 10

Answer: C) 8

2. Which of the following is NOT a scalar data type in PHP?

- A) Integer
- B) String
- C) Boolean
- D) Array

Answer: D) Array

3. What is the default data type of a variable in PHP if not explicitly assigned?

- A) Integer
- B) String
- C) NULL
- D) Undefined

Answer: C) NULL

4. What will be the output of the following PHP code?

```
$x = "10" + 20;  
echo $x;
```

- A) 30
- B) 1020
- C) Error
- D) NULL

Answer: A) 30

(PHP automatically converts the string "10" into an integer before performing addition.)

5. Which data type in PHP is used to store multiple values in a single variable?

- A) Boolean
- B) String
- C) Array
- D) Object

Answer: C) Array

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

- A) Object
- B) Resource
- C) Float
- D) Character

Answer: D) Character

(PHP does not have a specific "Character" data type; it treats single characters as strings.)

7. What will be the output of the following PHP code?

```
$x = (bool) "false";  
echo $x;
```

- A) false
- B) true
- C) 0
- D) NULL

Answer: B) true

(Any non-empty string is considered `true` in PHP when cast to a boolean.)

8. What function is used to determine the data type of a variable in PHP?

- A) datatype()
- B) gettype()
- C) typeof()
- D) var_type()

Answer: B) gettype()

9. What is the range of an Integer in a 32-bit PHP system?

- A) -2,147,483,648 to 2,147,483,647
- B) -32,768 to 32,767
- C) -128 to 127
- D) Unlimited

Answer: A) -2,147,483,648 to 2,147,483,647

10. What will be the output of the following PHP code?

```
$x = 5.6;  
echo gettype($x);
```

- A) integer
- B) double
- C) float
- D) string

Answer: B) double

(In PHP, float values are internally stored as "double".)

11. Which PHP function is used to check if a variable is of a specific type?

- A) is_type()
- B) gettype()
- C) is_numeric()
- D) type_check()

Answer: C) is_numeric()

12. What will be the data type of the variable `$x` in the following PHP code?

```
$x = NULL;
```

- A) Integer
- B) Undefined
- C) Null
- D) Boolean

Answer: C) Null

13. Which of the following functions is used to convert a variable into an integer?

- A) intval()
- B) floatval()
- C) strval()
- D) toInt()

Answer: A) intval()

14. What does the `is_array()` function check in PHP?

- A) If the variable is an array
- B) If the array is empty
- C) If the array contains integers
- D) If the array has an even number of elements

Answer: A) If the variable is an array

15. What will be the output of the following PHP code?

```
$x = "100";  
$y = (int) $x;  
echo gettype($y);
```

- A) integer
- B) string
- C) float
- D) boolean

Answer: A) integer

(Explicit type casting converts the string "100" into an integer.)

16. What does the `is_object()` function do in PHP?

- A) Checks if a variable is an object
- B) Converts a variable into an object
- C) Deletes an object
- D) Checks if a variable is empty

Answer: A) Checks if a variable is an object

17. What is the data type of the following variable?

```
$x = array(1, 2, 3);
```

- A) Integer
- B) String
- C) Array
- D) Object

Answer: C) Array

18. What will be the output of the following PHP code?

```
$x = "10.5";  
$y = (float) $x;  
echo gettype($y);
```

- A) integer
- B) string
- C) float
- D) boolean

Answer: C) float

19. What is the use of the `is_resource()` function in PHP?

- A) To check if a variable is a resource type
- B) To release memory used by a variable
- C) To convert a variable into a resource
- D) To count the number of open files

Answer: A) To check if a variable is a resource type

20. Which function is used to check whether a variable is of the `NULL` type?

- A) `is_null()`
- B) `is_empty()`
- C) `is_void()`
- D) `is_none()`

Answer: A) `is_null()`

MCQs on PHP Variables

1. Which symbol is used to declare a variable in PHP?

- A) `@`
- B) `$`
- C) `&`
- D) `#`

Answer: B) `$`

2. What will be the output of the following PHP code?

```
$x = 10;  
$y = $x;  
$y = 20;  
echo $x;
```

- A) 10
- B) 20
- C) 30
- D) Error

Answer: A) 10

(In PHP, variables are assigned by value by default, so changing `$y` does not affect `$x`.)

3. How do you define a constant in PHP?

- A) `const NAME = "value";`
- B) `$NAME = "value";`

- C) `define("NAME", "value");`
D) Both A and C

Answer: D) Both A and C

4. Which of the following is NOT a valid PHP variable name?

- A) `$myVar`
B) `$_var`
C) `$123var`
D) `$my_var`

Answer: C) `$123var`

(Variable names cannot start with a number in PHP.)

5. What is the scope of a variable declared inside a function in PHP?

- A) Global
B) Local
C) Static
D) Public

Answer: B) Local

(Variables declared inside a function are only accessible within that function.)

6. What will be the output of the following PHP code?

```
$x = "Hello";  
$y = &$x;  
$y = "World";  
echo $x;
```

- A) Hello
B) World
C) Error
D) NULL

Answer: B) World

(Using & creates a reference, so changing \$y also changes \$x.)

7. How do you declare a global variable inside a function in PHP?

- A) `global $var;`
- B) `define("var", "value");`
- C) `const var = "value";`
- D) `static $var;`

Answer: A) `global $var;`

8. What will be the output of the following PHP code?

```
$var = 5;
function test() {
    static $var = 0;
    $var++;
    echo $var;
}
test();
test();
```

- A) 1 1
- B) 1 2
- C) 6 6
- D) 6 7

Answer: B) 1 2

(Static variables retain their value between function calls.)

9. Which of the following statements about PHP variables is FALSE?

- A) PHP variables are case-sensitive
- B) Variable names can contain spaces
- C) PHP variables must start with a letter or underscore
- D) PHP variables do not need to be declared before assignment

Answer: B) Variable names can contain spaces

(Variable names cannot contain spaces in PHP.)

10. What will be the output of the following PHP code?

```
$var1 = "10";
$var2 = 10;
if ($var1 == $var2) {
    echo "Equal";
} else {
    echo "Not Equal";
}
```

- A) Equal
- B) Not Equal
- C) Error
- D) NULL

Answer: A) Equal

(The == operator checks for value equality, ignoring type differences.)

11. What will be the output of the following PHP code?

```
$var1 = "10";  
$var2 = 10;  
if ($var1 === $var2) {  
    echo "Equal";  
} else {  
    echo "Not Equal";  
}
```

- A) Equal
- B) Not Equal
- C) Error
- D) NULL

Answer: B) Not Equal

(The === operator checks for both value and type equality.)

12. Which of the following is the correct way to delete a variable in PHP?

- A) delete \$var;
- B) unset(\$var);
- C) remove(\$var);
- D) \$var = NULL;

Answer: B) unset(\$var);

13. What will be the output of the following PHP code?

```
$var = "PHP";  
unset($var);  
echo $var;
```

- A) PHP
- B) NULL
- C) Undefined variable error
- D) Empty string

Answer: C) Undefined variable error

14. What is the correct way to check if a variable is set in PHP?

- A) `isset($var);`
- B) `check($var);`
- C) `exists($var);`
- D) `validate($var);`

Answer: A) `isset($var);`

15. What will be the output of the following PHP code?

```
$var = NULL;
if (isset($var)) {
    echo "Set";
} else {
    echo "Not Set";
}
```

- A) Set
- B) Not Set
- C) Error
- D) NULL

Answer: B) Not Set

(isset(\$var) returns false for NULL values.)

16. What will be the output of the following PHP code?

```
define("PI", 3.14);
echo PI;
```

- A) 3.14
- B) PI
- C) Error
- D) NULL

Answer: A) 3.14

17. What will be the output of the following PHP code?

```
define("PI", 3.14);
PI = 3.1415;
echo PI;
```

- A) 3.1415
- B) 3.14

- C) Error
- D) NULL

Answer: C) Error

(Constants cannot be reassigned once defined.)

18. What function is used to check if a variable is an integer?

- A) `is_int()`
- B) `is_integer()`
- C) `is_numeric()`
- D) `is_number()`

Answer: A) `is_int()`

19. What will be the output of the following PHP code?

```
$name = "John";  
echo "Hello, $name!";
```

- A) Hello, John!
- B) Hello, \$name!
- C) Error
- D) NULL

Answer: A) Hello, John!

(Variables inside double quotes are interpolated.)

20. What will be the output of the following PHP code?

```
$name = 'John';  
echo 'Hello, $name!';
```

- A) Hello, John!
- B) Hello, \$name!
- C) Error
- D) NULL

Answer: B) Hello, \$name!

MCQs on Scope of Variables in PHP

1. What are the types of variable scope in PHP?

- A) Local, Global, Static, and Function
- B) Local, Global, Static, and Parameter

- C) Public, Private, Protected, and Static
- D) Global, Static, Constant, and Local

Answer: B) Local, Global, Static, and Parameter

2. What is the default scope of a variable declared inside a function in PHP?

- A) Global
- B) Static
- C) Local
- D) Public

Answer: C) Local

(A variable declared inside a function is local to that function and cannot be accessed outside.)

3. What keyword is used to access a global variable inside a function?

- A) global
- B) public
- C) static
- D) var

Answer: A) global

4. What will be the output of the following PHP code?

```
$x = 10;  
function test() {  
    echo $x;  
}  
test();
```

- A) 10
- B) Error
- C) NULL
- D) Undefined

Answer: B) Error

(The variable `$x` is global and cannot be accessed inside the function unless declared using `global $x;`)

5. How can you access a global variable inside a function?

- A) `global $var;`
- B) `use $var;`

- C) `function_var($var);`
- D) `access($var);`

Answer: A) `global $var;`

6. What will be the output of the following PHP code?

```
$x = 5;
function test() {
    global $x;
    $x = 10;
}
test();
echo $x;
```

- A) 5
- B) 10
- C) Error
- D) NULL

Answer: B) 10

(The `global` keyword allows the function to modify the global variable `$x`.)

7. What will be the output of the following PHP code?

```
function test() {
    static $x = 0;
    $x++;
    echo $x;
}
test();
test();
test();
```

- A) 1 1 1
- B) 1 2 3
- C) 0 1 2
- D) Error

Answer: B) 1 2 3

(Static variables retain their values between function calls.)

8. What is the use of the `static` keyword in PHP?

- A) To make a variable retain its value between function calls
- B) To make a variable global
- C) To declare a constant
- D) To create an object

Answer: A) To make a variable retain its value between function calls

9. What will be the output of the following PHP code?

```
function test() {  
    static $x = 0;  
    echo $x;  
    $x++;  
}  
test();  
test();  
test();
```

- A) 0 0 0
- B) 1 1 1
- C) 0 1 2
- D) Error

Answer: C) 0 1 2

(Static variables are initialized only once and retain their values between function calls.)

10. How can you access a global variable inside a function without using `global`?

- A) Using `$GLOBALS` array
- B) Using `this->var`
- C) Using `const` keyword
- D) Using `define()`

Answer: A) Using `$GLOBALS` array

11. What will be the output of the following PHP code?

```
$x = 10;  
function test() {  
    echo $GLOBALS['x'];  
}  
test();
```

- A) 10
- B) Error
- C) NULL
- D) Undefined

Answer: A) 10

(The `$GLOBALS` array allows access to global variables inside functions.)

12. What happens if you use a variable inside a function without declaring it as global?

- A) It will be treated as a local variable
- B) It will use the global value
- C) It will cause an error
- D) It will return NULL

Answer: A) It will be treated as a local variable

13. What is the difference between `global` and `$GLOBALS` in PHP?

- A) `global` creates a copy, `$GLOBALS` directly accesses the global variable
- B) Both work the same way
- C) `global` can be used inside and outside functions, `$GLOBALS` only inside
- D) `$GLOBALS` creates a new variable, `global` does not

Answer: A) `global` creates a copy, `$GLOBALS` directly accesses the global variable

14. What will be the output of the following PHP code?

```
$x = 10;  
function test() {  
    global $x;  
    $x = 20;  
}  
test();  
echo $x;
```

- A) 10
- B) 20
- C) Error
- D) NULL

Answer: B) 20

(Using `global $x;` allows the function to modify the global variable.)

15. What happens if a global variable is modified inside a function without using `global` or `$GLOBALS`?

- A) It remains unchanged
- B) It changes
- C) It throws an error
- D) It becomes NULL

Answer: A) It remains unchanged

16. What will be the output of the following PHP code?

```
function test() {  
    static $x = 5;  
    echo $x;  
    $x++;  
}  
test();  
test();  
test();  
A) 5 5 5  
B) 5 6 7  
C) 6 7 8  
D) Error
```

Answer: B) 5 6 7

(Static variables retain their values across function calls.)

17. What is the best way to make a variable available in multiple functions?

- A) Use `global` keyword
- B) Use `$_GLOBALS` array
- C) Pass it as a function parameter
- D) All of the above

Answer: D) All of the above

18. What will be the output of the following PHP code?

```
$x = 10;  
function test() {  
    static $x = 20;  
    echo $x;  
}  
test();  
echo $x;  
A) 10 10  
B) 20 20  
C) 20 10  
D) Error
```

Answer: C) 20 10

(The static `$x` inside `test()` is different from the global `$x`.)

19. What will be the output of the following PHP code?

```
$y = 50;
function test() {
    global $y;
    $y = 100;
}
test();
echo $y;
```

- A) 50
- B) 100
- C) Error
- D) NULL

Answer: B) 100

(The `global` keyword allows modification of the global variable `$y`.)

20. What is the correct way to create a variable that can be used only inside a function but retains its value between function calls?

- A) `global $var;`
- B) `static $var;`
- C) `define("var", value);`
- D) `$GLOBALS['var'] = value;`

Answer: B) `static $var;`

MCQs on PHP Arrays and Their Types

1. What is an array in PHP?

- A) A data structure that stores a single value
- B) A data structure that stores multiple values in a single variable
- C) A function in PHP
- D) A class in PHP

Answer: B) A data structure that stores multiple values in a single variable

2. How do you declare an array in PHP?

- A) `$arr = array(1, 2, 3);`
- B) `$arr = [1, 2, 3];`
- C) Both A and B
- D) None of the above

Answer: C) Both A and B

(Both `array()` and `[]` can be used to declare an array in PHP.)

3. How many types of arrays are there in PHP?

- A) 2
- B) 3
- C) 4
- D) 5

Answer: B) 3

(PHP supports Indexed Arrays, Associative Arrays, and Multidimensional Arrays.)

4. What is an indexed array in PHP?

- A) An array with string keys
- B) An array with numeric keys
- C) An array that contains objects
- D) An array with duplicate values only

Answer: B) An array with numeric keys

5. What is an associative array in PHP?

- A) An array with numeric indexes
- B) An array with string keys
- C) An array that contains objects
- D) An array with no values

Answer: B) An array with string keys

6. What is a multidimensional array in PHP?

- A) An array inside another array
- B) A function that returns an array
- C) An array with keys as numbers
- D) A built-in PHP class

Answer: A) An array inside another array

7. How do you access an element of an indexed array?

- A) `$arr["key"];`
- B) `$arr[0];`
- C) `array_get($arr, 0);`
- D) `$arr->get(0);`

Answer: B) `$arr[0];`

(Indexed arrays use numeric keys starting from 0.)

8. How do you access an element of an associative array?

- A) `$arr[0];`
- B) `$arr["name"];`
- C) `array_get($arr, "name");`
- D) `$arr->get("name");`

Answer: B) `$arr["name"];`

9. How do you declare an associative array in PHP?

- A) `$arr = array("name" => "John", "age" => 25);`
- B) `$arr = ["name" => "John", "age" => 25];`
- C) Both A and B
- D) None of the above

Answer: C) Both A and B

10. What will be the output of the following PHP code?

```
$arr = ["apple", "banana", "cherry"];  
echo $arr[1];
```

- A) apple
- B) banana
- C) cherry
- D) Error

Answer: B) banana

(Arrays in PHP are zero-indexed, so index 1 refers to "banana".)

11. Which function is used to count the number of elements in an array?

- A) `sizeof($arr);`
- B) `count($arr);`
- C) Both A and B
- D) None of the above

Answer: C) Both A and B

12. How do you add a new element to an existing array?

- A) `$arr[] = "new_value";`
- B) `array_push($arr, "new_value");`
- C) Both A and B
- D) None of the above

Answer: C) Both A and B

13. What will be the output of the following PHP code?

```
$arr = ["a" => "apple", "b" => "banana"];  
echo $arr["b"];
```

- A) apple
- B) banana
- C) Error
- D) NULL

Answer: B) banana

(Associative arrays use string keys, so `$arr["b"]` gives "banana".)

14. How do you remove the last element from an array in PHP?

- A) `array_pop($arr);`
- B) `array_shift($arr);`
- C) `unset($arr);`
- D) `delete_last($arr);`

Answer: A) `array_pop($arr);`

15. What does the `array_keys()` function do in PHP?

- A) Returns an array of all keys from an array
- B) Returns an array of all values from an array
- C) Removes duplicate keys
- D) Sorts an array by keys

Answer: A) Returns an array of all keys from an array

16. What does the `array_values()` function do in PHP?

- A) Returns an array of all keys from an array
- B) Returns an array of all values from an array
- C) Removes duplicate values
- D) Sorts an array by values

Answer: B) Returns an array of all values from an array

17. How do you merge two arrays in PHP?

- A) `array_merge($arr1, $arr2);`
- B) `merge($arr1, $arr2);`
- C) `$arr1 + $arr2;`
- D) `combine($arr1, $arr2);`

Answer: A) `array_merge($arr1, $arr2);`

18. What will be the output of the following PHP code?

```
$arr1 = ["a" => "apple", "b" => "banana"];
$arr2 = ["b" => "blueberry", "c" => "cherry"];
$result = array_merge($arr1, $arr2);
print_r($result);
```

- A) `["a" => "apple", "b" => "banana", "b" => "blueberry", "c" => "cherry"]`
- B) `["a" => "apple", "b" => "blueberry", "c" => "cherry"]`
- C) `["a" => "apple", "b" => "banana", "c" => "cherry"]`
- D) Error

Answer: B) `["a" => "apple", "b" => "blueberry", "c" => "cherry"]`

(array_merge() replaces duplicate keys with values from the second array.)

19. Which function sorts an associative array by its values in ascending order?

- A) `sort($arr);`
- B) `asort($arr);`
- C) `ksort($arr);`
- D) `rsort($arr);`

Answer: B) `asort($arr);`

20. What will be the output of the following PHP code?

```
$arr = ["fruit" => "apple", "vegetable" => "carrot"];
unset($arr["fruit"]);
print_r($arr);
```

- A) `["fruit" => "apple"]`
- B) `["vegetable" => "carrot"]`
- C) `["fruit" => "apple", "vegetable" => "carrot"]`
- D) NULL

Answer: B) `["vegetable" => "carrot"]`

(The `unset()` function removes "fruit" from the array.)

MCQs on PHP Strings

1. What is a string in PHP?

- A) A sequence of characters
- B) A numeric data type
- C) A function in PHP
- D) An array

Answer: A) A sequence of characters

2. Which of the following is the correct way to declare a string in PHP?

- A) `$str = 'Hello World';`
- B) `$str = "Hello World";`
- C) `$str = <<<EOT Hello World EOT;`
- D) All of the above

Answer: D) All of the above

(Strings in PHP can be declared using single quotes ('), double quotes ("), and heredoc syntax (<<<EOT).)

3. What is the difference between single-quoted and double-quoted strings in PHP?

- A) There is no difference
- B) Single-quoted strings do not process variables, but double-quoted strings do
- C) Double-quoted strings are faster than single-quoted strings
- D) Single-quoted strings are used for numbers, double-quoted for text

Answer: B) Single-quoted strings do not process variables, but double-quoted strings do

4. What will be the output of the following PHP code?

```
$name = "John";  
echo 'Hello $name';
```

- A) Hello John
- B) Hello \$name
- C) Error
- D) Undefined

Answer: B) Hello \$name

(Single-quoted strings do not process variables, so \$name is treated as plain text.)

5. What will be the output of the following PHP code?

```
$name = "John";  
echo "Hello $name";
```

- A) Hello John
- B) Hello \$name
- C) Error
- D) Undefined

Answer: A) Hello John

(Double-quoted strings process variables, so \$name is replaced with "John".)

6. Which function is used to find the length of a string in PHP?

- A) strlen()
- B) length()
- C) count()
- D) strlenlength()

Answer: A) strlen()

7. What will be the output of `strlen("Hello")`?

- A) 5
- B) 6
- C) 4
- D) Error

Answer: A) 5

8. Which function is used to count the number of words in a string?

- A) str_count()
- B) word_count()
- C) str_word_count()
- D) strlen()

Answer: C) str_word_count()

9. What will be the output of `str_word_count("Hello World!")`?

- A) 1
- B) 2
- C) 3
- D) Error

Answer: B) 2

10. Which function is used to reverse a string in PHP?

- A) `reverse()`
- B) `strrev()`
- C) `str_reverse()`
- D) `flip_string()`

Answer: B) `strrev()`

11. What will be the output of `strrev("Hello")`?

- A) Hello
- B) olleH
- C) hElLo
- D) Error

Answer: B) olleH

12. Which function is used to convert a string to lowercase?

- A) `strtolower()`
- B) `toLowerCase()`
- C) `lower()`
- D) `str_lower()`

Answer: A) `strtolower()`

13. What will be the output of `strtolower("Hello WORLD")`?

- A) hello world
- B) HELLO WORLD
- C) Hello WORLD
- D) Error

Answer: A) hello world

14. Which function is used to convert a string to uppercase?

- A) `strtoupper()`
- B) `toUpperCase()`
- C) `upper()`
- D) `str_upper()`

Answer: A) `strtoupper()`

15. What will be the output of `strtoupper("hello world")`?

- A) hello world
- B) HELLO WORLD
- C) Hello WORLD
- D) Error

Answer: B) HELLO WORLD

16. Which function is used to extract a portion of a string?

- A) `substr()`
- B) `slice()`
- C) `substring()`
- D) `str_extract()`

Answer: A) `substr()`

17. What will be the output of `substr("Hello World", 6, 5)`?

- A) Hello
- B) World
- C) lo Wo
- D) Error

Answer: B) World

(Extracts 5 characters starting from index 6.)

18. How do you replace part of a string in PHP?

- A) `str_replace()`
- B) `replace()`
- C) `substr_replace()`
- D) `string_replace()`

Answer: A) `str_replace()`

19. What will be the output of `str_replace("world", "PHP", "Hello world")`?

- A) Hello world
- B) Hello PHP

- C) Hello
- D) PHP world

Answer: B) Hello PHP

(Replaces "world" with "PHP" in the given string.)

20. Which function removes whitespace from both ends of a string?

- A) `trim()`
- B) `strip()`
- C) `remove_space()`
- D) `clear_whitespace()`

Answer: A) `trim()`

MCQs on PHP Operators

1. What are operators in PHP?

- A) Special characters that perform operations on variables and values
- B) Functions in PHP
- C) Data types in PHP
- D) Keywords in PHP

Answer: A) Special characters that perform operations on variables and values

2. Which of the following is an arithmetic operator in PHP?

- A) `+`
- B) `*`
- C) `%`
- D) All of the above

Answer: D) All of the above

3. What is the output of `echo 5 + 3;`?

- A) 8
- B) 53
- C) 15
- D) Error

Answer: A) 8

4. What does the % operator do in PHP?

- A) Division
- B) Modulus (remainder)
- C) Multiplication
- D) Exponentiation

Answer: B) Modulus (remainder)

5. What will be the output of `echo 10 % 3;`?

- A) 3
- B) 1
- C) 0
- D) Error

Answer: B) 1

6. Which operator is used for exponentiation in PHP 5.6+?

- A) ^
- B) **
- C) ^^
- D) exp ()

Answer: B) **

7. What will be the output of `echo 2 ** 3;`?

- A) 6
- B) 8
- C) 9
- D) Error

Answer: B) 8

8. Which of the following is an assignment operator in PHP?

- A) =
- B) +=
- C) -=
- D) All of the above

Answer: D) All of the above

9. What will be the output of the following code?

```
php
CopyEdit
$x = 5;
$x += 3;
echo $x;
```

- A) 8
- B) 5
- C) 3
- D) Error

Answer: A) 8

10. Which of the following is a comparison operator in PHP?

- A) ==
- B) !=
- C) <=
- D) All of the above

Answer: D) All of the above

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

- A) == checks value, === checks both value and data type
- B) === is faster than ==
- C) == checks data type, === does not
- D) They are the same

Answer: A) == checks value, === checks both value and data type

12. What will be the output of `echo (5 == "5");`?

- A) 1
- B) 0
- C) Error
- D) NULL

Answer: A) 1

(Because == checks only value, not data type.)

13. What will be the output of `echo (5 === "5");`?

- A) 1
- B) 0

- C) Error
- D) NULL

Answer: B) 0

(Because === checks both value and type.)

14. What does the `!=` operator mean?

- A) Not equal
- B) Greater than
- C) Less than
- D) Assignment

Answer: A) Not equal

15. What does the `<=>` (Spaceship) operator return when the left operand is greater than the right?

- A) -1
- B) 0
- C) 1
- D) NULL

Answer: C) 1

16. Which operator is used for logical AND in PHP?

- A) `&&`
- B) `and`
- C) Both A and B
- D) `&`

Answer: C) Both A and B

17. What will be the output of `echo (true && false);`?

- A) 1
- B) 0
- C) NULL
- D) Error

Answer: B) 0

18. What is the output of `echo (true || false);`?

- A) 1
- B) 0
- C) NULL
- D) Error

Answer: A) 1

19. What is the result of `echo !(true);`?

- A) 1
- B) 0
- C) NULL
- D) Error

Answer: B) 0

20. What is the ternary operator syntax in PHP?

- A) `condition ? true_value : false_value;`
- B) `condition : true_value ? false_value;`
- C) `true_value ? condition : false_value;`
- D) None of the above

Answer: A) `condition ? true_value : false_value;`

21. What will be the output of `echo (5 > 3) ? "Yes" : "No";`?

- A) Yes
- B) No
- C) 1
- D) 5

Answer: A) Yes

22. What is the null coalescing operator in PHP?

- A) ??
- B) ?:
- C) ::
- D) &&

Answer: A) ??

23. What does `$x ?? "Default"`; return if `$x` is undefined?

- A) Default
- B) NULL
- C) Error
- D) 0

Answer: A) Default

24. What is the result of `echo 5 & 3`;

- A) 1
- B) 5
- C) 3
- D) 2

Answer: D) 2

*(Bitwise AND operation: 5 (101) & 3 (011) = 001 (2))

25. What will be the result of `echo 5 | 3`;

- A) 5
- B) 3
- C) 7
- D) 2

Answer: C) 7

*(Bitwise OR operation: 5 (101) | 3 (011) = 111 (7))

26. Which of the following is a bitwise operator in PHP?

- A) &
- B) |
- C) ^
- D) All of the above

Answer: D) All of the above

27. What does the ^ (bitwise XOR) operator do?

- A) Flips all bits
- B) Returns 1 if only one of the bits is 1

- C) Performs logical XOR
- D) None of the above

Answer: B) Returns 1 if only one of the bits is 1

28. What will be the output of `echo 5 ^ 3;`?

- A) 6
- B) 2
- C) 1
- D) 7

Answer: A) 6

*(Bitwise XOR: $5 \text{ (101)} \wedge 3 \text{ (011)} = 110 \text{ (6)}$)

29. Which operator is used for bitwise NOT in PHP?

- A) !
- B) ~
- C) not
- D) -

Answer: B) ~

30. What is the result of `echo ~5;`?

- A) -6
- B) 4
- C) -5
- D) 6

Answer: A) -6

(Bitwise NOT flips all bits and adds -1.)

31. What will be the output of `echo 8 << 1;`?

- A) 16
- B) 4
- C) 8
- D) 0

Answer: A) 16

(Left shift moves bits left by 1 position, doubling the value.)

32. What is the output of `echo 8 >> 1;`?

- A) 4
- B) 8
- C) 16
- D) 0

Answer: A) 4

(Right shift moves bits right by 1 position, halving the value.)

33. What will `echo 10 <=> 5;` return?

- A) -1
- B) 0
- C) 1
- D) Error

Answer: C) 1

(10 is greater than 5, so `<=>` (spaceship operator) returns 1.)

34. What will `echo 5 <=> 10;` return?

- A) -1
- B) 0
- C) 1
- D) Error

Answer: A) -1

(5 is less than 10, so <=> returns -1.)

35. What is the purpose of the ?. (null safe) operator in PHP 8?

- A) Checks if an object is null before calling a method
- B) Assigns null values
- C) Converts null to 0
- D) None of the above

Answer: A) Checks if an object is null before calling a method

36. What will be the result of `echo null ?? "Default";`?

- A) null
- B) Default
- C) Error
- D) Undefined

Answer: B) Default

(?? (null coalescing) returns "Default" if null is present.)

37. What will `echo 5 == "5";` return?

- A) true
- B) false
- C) Error
- D) Undefined

Answer: A) true

(Loose comparison == ignores data type.)

38. What will `echo 5 === "5";` return?

- A) true
- B) false

- C) Error
- D) Undefined

Answer: B) false

(Strict comparison === checks data type.)

39. Which operator is used to concatenate strings in PHP?

- A) +
- B) .
- C) &
- D) concat ()

Answer: B) .

40. What will be the output of `echo "Hello" . " World";`?

- A) Hello World
- B) HelloWorld
- C) Error
- D) None

Answer: B) HelloWorld

41. What will `echo "5" + 5;` return?

- A) 55
- B) 10
- C) Error
- D) Undefined

Answer: B) 10

(PHP automatically converts "5" to integer 5.)

42. Which operator is used for string repetition?

- A) *
- B) .
- C) repeat ()
- D) None of the above

Answer: D) None of the above

(PHP does not have a native repetition operator.)

43. What will be the result of `echo 10 ?? "Default";`?

- A) 10
- B) Default
- C) NULL
- D) Error

Answer: A) 10

44. Which operator is used for object cloning in PHP?

- A) clone
- B) new
- C) copy
- D) __clone ()

Answer: A) clone

45. What will `echo "5" === 5;` return?

- A) 1
- B) 0
- C) Error
- D) Undefined

Answer: B) 0

(Strict comparison returns false.)

46. What will be the output of `echo "5" + "10";`?

- A) 510
- B) 15
- C) Error
- D) Undefined

Answer: B) 15

(PHP converts strings to integers when using +.)

47. What is the precedence of `&&` compared to `and`?

- A) `&&` has higher precedence
- B) `and` has higher precedence
- C) Both are equal
- D) None of the above

Answer: A) `&&` has higher precedence

48. What will be the output of `echo true and false;`?

- A) 1
- B) 0
- C) Error
- D) Undefined

Answer: A) 1

(Because `=` has higher precedence than `and`.)

49. What will be the result of `echo false or true;`?

- A) 1
- B) 0
- C) Error
- D) Undefined

Answer: B) 0

(echo false executes first, ignoring or true.)

50. What is the correct syntax for using the ternary operator?

- A) condition ? true_value : false_value;
- B) condition : true_value ? false_value;
- C) true_value ? condition : false_value;
- D) None of the above

Answer: A) condition ? true_value : false_value;

1. What is operator precedence in PHP?

- A) The order in which operators are evaluated
- B) The number of operands an operator can take
- C) The associativity of an operator
- D) The priority of functions

Answer: A) The order in which operators are evaluated

2. Which operator has the highest precedence in PHP?

- A) () (Parentheses)
- B) ++ (Increment)
- C) * (Multiplication)
- D) = (Assignment)

Answer: A) () (Parentheses)

3. What is the purpose of parentheses () in operator precedence?

- A) To change the natural order of evaluation
- B) To define a function
- C) To assign values
- D) To compare values

Answer: A) To change the natural order of evaluation

4. What will be the output of `echo 5 + 3 * 2;`?

- A) 16
- B) 11
- C) 13
- D) 10

Answer: B) 11

*(Multiplication has higher precedence than addition: $5 + (3 * 2) = 5 + 6 = 11$.)*

5. What will be the output of `echo (5 + 3) * 2;`?

- A) 16
- B) 11
- C) 13
- D) 10

Answer: A) 16

*(Parentheses change the order: $(5 + 3) * 2 = 8 * 2 = 16$.)*

6. Which has higher precedence: `&&` or `and`?

- A) `&&`
- B) `and`
- C) Both are the same
- D) Depends on the context

Answer: A) `&&`

7. Which has higher precedence: `||` or `or`?

- A) `||`
- B) `or`
- C) Both are the same
- D) Depends on the context

Answer: A) `||`

8. What will be the output of `echo true && false || true;`?

- A) true
- B) false
- C) Error
- D) 1

Answer: A) true

(Since `&&` has higher precedence than `||`, the expression is evaluated as `(true && false) || true`, which results in `false || true = true`.)

9. What will be the output of `echo true and false;`?

- A) true
- B) false
- C) 1
- D) Error

Answer: C) 1

(Because `echo` has higher precedence than `and`, the expression is treated as `(echo true) and false`, so it prints 1 and does not evaluate `and false`.)

10. Which operator has the lowest precedence in PHP?

- A) +
- B) =
- C) `or`
- D) .

Answer: C) `or`

11. What will be the output of `echo 10 - 2 * 3;`?

- A) 24
- B) 4

- C) 8
- D) 10

Answer: B) 4

*(Multiplication has higher precedence: $10 - (2 * 3) = 10 - 6 = 4$.)*

12. Which has higher precedence: . (concatenation) or + (addition)?

- A) .
- B) +
- C) Both have the same precedence
- D) Depends on the context

Answer: B) +

13. What will be the output of `echo 5 . 2 + 3;`?

- A) $52 + 3$
- B) 55
- C) 8
- D) 52

Answer: B) 55

(Addition has higher precedence than concatenation: $("5" . (2 + 3)) = "5" . "5" = "55"$.)

14. Which has higher precedence: == or &&?

- A) ==
- B) &&
- C) Both are the same
- D) Depends on the context

Answer: A) ==

15. What is the output of `echo 5 > 3 && 2 < 4;`?

- A) true
- B) false
- C) 1
- D) 0

Answer: C) 1

16. What is the associativity of the `=` operator?

- A) Left to right
- B) Right to left
- C) No associativity
- D) Depends on the operands

Answer: B) Right to left

17. What will be the output of `echo $x = 5 + 3 * 2;`?

- A) 16
- B) 11
- C) 10
- D) Error

Answer: B) 11

(Assignment = has lower precedence than arithmetic operations.)

18. Which operator has the lowest precedence among these?

- A) +
- B) =
- C) and
- D) ||

Answer: C) and

19. What will be the output of `echo 10 - 3 + 2 ; ?`

- A) 5
- B) 9
- C) 10
- D) 15

Answer: B) 9

(Operators of the same precedence are evaluated left to right: $(10 - 3) + 2 = 7 + 2 = 9$.)

20. What is the associativity of `.` (concatenation) operator?

- A) Left to right
- B) Right to left
- C) No associativity
- D) None of the above

Answer: A) Left to right

21. What will be the output of `echo "Hello" . " World" . "!" ; ?`

- A) Hello World!
- B) HelloWorld!
- C) Error
- D) None

Answer: B) HelloWorld!

22. Which operator has higher precedence: `+` or `%`?

- A) `+`
- B) `%`
- C) Both are the same
- D) None of the above

Answer: B) `%`

23. What will be the output of `echo (10 % 3) * 2;`?

- A) 1
- B) 2
- C) 4
- D) 6

Answer: C) 4

24. What is the precedence of `++` (increment) operator?

- A) Highest
- B) Lowest
- C) Medium
- D) Depends on the context

Answer: A) Highest

25. What will be the output of `echo 10 > 5 ? "Yes" : "No";`?

- A) Yes
- B) No
- C) Error
- D) None

Answer: A) Yes

26. Which operator has lower precedence: `or` or `||`?

- A) `or`
- B) `||`
- C) Both are the same
- D) Depends on context

Answer: A) `or`

27. What is the associativity of `&&`?

- A) Left to right
- B) Right to left
- C) No associativity
- D) None

Answer: A) Left to right

28. Which has higher precedence: * or /?

- A) *
- B) /
- C) Both are equal
- D) Depends on context

Answer: C) Both are equal

29. Which of the following has the lowest precedence?

- A) +
- B) .
- C) =
- D) or

Answer: D) or

30. What will be the output of `echo (5 + 2) * 3;`?

- A) 21
- B) 17
- C) 15
- D) 23

Answer: A) 21