1. What is the output of the following PHP script:

```
$a = 0;
if ($a = 10) {
    echo "a";
}
if ($a == 0) {
    echo "b";
}
if ($a == "0") {
    echo "c";
}
```
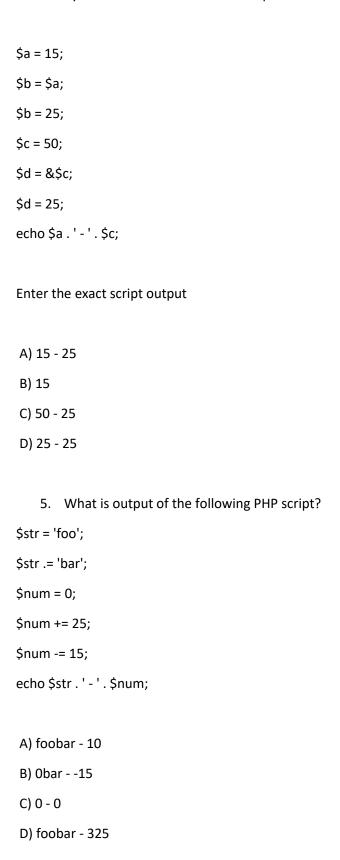
Enter the exact script output

A) b

B) ab

C) abc

D) a

2. Which of the following statements best describes the @ operator when used in PHP code?

A) Error messages and warnings are written to the system log file.

B) Error messages and warnings are not displayed, regardless of the error reporting setting.

C) Error messages and warnings are displayed, even if error reporting is disabled.

D) The system administrator will be notified if an error occurs.

3. Which of the statements below best describe the following PHP code. Note that backticks are being used (not single quotes).

```
$output = `ls`;
```

A) The value 'ls' is assigned to $output.

B) The 'ls' command is executed and its output is assigned to $output

C) The value 'ls' is assigned to $output and written to the system log file.

D) The 'ls' command is executed and its output is written to the system log file.

4. PHP assigns non-object variables by value, but you can "connect" one variable to another so assignment occurs by reference instead. What is output of the following PHP script?

$a = 15;

$b = $a;

$b = 25;

$c = 50;

$d = &$c;

$d = 25;

echo $a . ' - ' . $c;

Enter the exact script output

A) 15 - 25

B) 15

C) 50 - 25

D) 25 - 25

5. What is output of the following PHP script?

$str = 'foo';

$str .= 'bar';

$num = 0;

$num += 25;

$num -= 15;

echo $str . ' - ' . $num;

A) foobar - 10

B) 0bar - -15

C) 0 - 0

D) foobar - 325

6. What is the output of the following PHP script?

```php
$a = ($b = 13) - 5;
echo $a . ' - ' . $b;
```

A) -5 - 13

B) 8 - 13

C) 13 - 5

D) 5 - 13

7. What is the output of the following PHP script?

```php
$i = 100;
$j = $i++ - 10;
echo $i . ' - ' . $j;
```

A) 110 - 101

B) 101 - 101

C) 101 - 90

D) 101 - 110

8. Consider the use of bitwise operators on hexadecimal values. What is the output of the following PHP script?

```php
$a = 0xF0;
$b = 0x0F;
$val1 = $a & $b; // bitwise AND
$val2 = $a | $b; // bitwise OR
$val3 = $a ^ ($b | $a); // bitwise XOR
echo sprintf('0x%02X - 0x%02X - 0x%02X', $val1, $val2, $val3);
```

A) 0xF0 - 0xFF - 0xF0
B) C)0x00 - 0xF0 - 0x00
C) 0x00 - 0xFF - 0xF0
D) 0x00 - 0xFF - 0x0F

9. What is the output of the following PHP script?

$a = 10 * 5 + 8;

$b = 4 * 6 - 10 / 2;

$c = 8 / (12 - 8) * 4;

echo $a . ' - ' . $b . ' - ' . $c;

Enter the exact script output

A) 56 - 10 - 8

B) 58 - 19 - 8

C) an error

D) null

10. What is the output of the following PHP script?

$a = 25;

echo $a % 10;

A) 5

B) 15

C) 250

D) 25

11. The bitwise left shift (>) operands move the bits in the left operand left or right by the number of positions in the right operand. This is in effect a fast way to multiple or divide by powers of 2. What is the output of the following script?

```
$a = 15 << 2;
$b = 10 >> 1;
$c = 0xF0 >> 4;


echo sprintf('%d - %d - 0x%X', $a, $b, $c);
```

 A) 30 - 10 - 0xF

 B) 30 - 5 - 0x0

 C) 60 - 5 - 0xF

 D) 60 - 10 - 0xF

12. What is the output of the following PHP script:

```
$a = "1";
$b = "01";


echo ($a == $b) ? "a" : "b";
echo ($a === $b) ? "c" : "d";
echo ($a < $b) ? "e" : "f";
```

 A) adf

 B) acf

 C) bde

 D) bdf

13. What is the output of the following PHP script?

```
$a = array('z', 'x');
$b = array('y', 'w');
$c = array('a' => 1, 'b' => 2);
$d = array('c' => 3, 'd' => 4);


$e = $a + $b;
$f = $c + $d;
```

```php
foreach ($e as $value) {

   echo $value;

}

foreach ($f as $value) {

   echo $value;

}
```

Enter the exact script output

 A) 1234

 B) zx1234

C) null

 D) 12zx

14. What is the output of the following PHP script:

```php
$a = 10;

$b = "10";


if ($a == $b) {

   echo "a";

} else {

   echo "b";

}

if ($a === $b) {

   echo "c";

} else {

   echo "d";

}
```

Enter the exact script output

 A) ad

 B) ac

 C) bd

 D) da

15. What is the output of the following PHP (PHP7) script?

```php
$string1 = 'foo' . 'bar';

$string2 = 'hello' + 'goodbye';

$string3 = "abc" + "123";


echo sprintf('%s - %s - %s', $string1, $string2, $string3);
```

Enter the exact script output

A) bar

B) 0

C) foo

D) foobar - 0 - 123

16. What is the output of the following PHP script?

```php
$myVar = 'foo';

$$myVar = 'bar';

echo $'myVar';
```

A) Syntax Error

B) foo

C) foobar

D) bar

17. What is the output of the following script?

```php
$varName = 'abc';

$$varName = '123';

echo $abc;
```

Enter the exact script output

A) 123

B) abc

C) null

D) an error

18. What is the output of the following PHP script?

```php
function getName($lastName) {

  if ($lastName) {

    return 'Bloggs';

  } else {

    return 'Jeremiah';

  }
}


$func = 'getName';

echo $func(true);
```

Enter the exact script output

A) null

B) Jeremiah

C) Bloggs

D) BloggsJeremiah

19. What is the output of the following PHP script?

```php
$myVar = 'foo';

$$myVar = 'bar';

echo ${'myVar'} . $foo;
```

A) bar

B) myVarfoo

C) foobar

D) Syntax Error

20. Of the following options, which are valid variable names?
A) $5_name
B) $25name
C) Str
D) $string123

21. What is the output of the following PHP script?

```php
$name = 'Joe';
$$name = 'Bloggs';
echo ${$name};
```

Enter the exact script output

A) Bloggs

B) Joe

C) BloggsJoe

D) null

22. How do you check if a variable $name exists in the current scope in a PHP script?

A) isset($name)

B) varExists('name')

C) defined($name)

D) isset('name')

23. What is the output of the following PHP script?

```php
define('123MESSAGE', '123');
if (strlen(123MESSAGE) == 12) {
    echo 123MESSAGE;
} else {
    echo 'ABC';
}
```

A) Syntax Error

B) 123

C) ABC123MESSAGE

D) ABC123

24. What is the output of the following PHP script?

```php
define('SOMEVAL', 0);
if (strlen(SOMEVAL) > 0) {
    echo "Hello";
} else {
    echo "Goodbye";
}
```

A) Goodbye

B) Hello

C) Syntax Error

D) 0

25. What is the output of the following PHP script?

```php
define('MYCONSTANT', 0);
if (empty(MYCONSTANT)) {
    echo "Hello";
} else {
    echo "Goodbye";
}
```

A) Hello

B) Goodbye

C) Syntax Error

D) 0

26. What is the output of the following script?

```php
$number = 100;
echo $number < 10 ? "a" : ($number > 100 ? "b" : "c");
```

A) c

B) Syntax Error

C) a

D) b

27. What is the output of the following script?

```
$x = 5;
$y = $x << 1;
switch ($x + $y) {
    case 5:
        echo "a";
        break;
    case 10:
        echo "b";
        break;
    case 15:
        echo "c";
    case 20:
        echo "d";
        break;
    default:
        echo "e";
}
```

A) bd

B) b

C) ac

D) cd

28. What is the output of the following script?

```php
$str = "Hello";
if ($str == "Hello") {
    echo "a";
} else if ($str == "Goodbye") {
    echo "b";
} elseif ($str == "Hello") {
    echo "c";
} else
    echo "d";
```

A) b

B) a

C) d

D) Syntax Error

29. What is the output of the following PHP script?

```php
for ($i = 5; ; $i++) {
    if ($i < 10) {
        break;
    }
}
echo $i;
```

Enter the exact script output

A) 12345

B) 5

C) null

D) an error

30. What is the output of the following script?

```
$x = 5;

switch ($x) {

    case 5:

        echo "a";

        break;

    case 10:

        echo "b";

        break;

    case 15:

        echo "c";

        break;

    case 20:

        echo "d";

        break;

    case default:

        echo "e";

}
```

A) Syntax Error

B) e

C) a

D) d

31. What is the output of the following script?

```
$number = 15;
if ($number > 15);
   for ($i = 1; $i < 5; $i++)
      echo $i;

echo $number;
```

A) 1234515

B) 12345

C) 123415

D) 1234

32. Consider the following code, stored inside the myInclude.php file.

```
$foo = "Bar";
return $foo;
```

What happens when you include this script from another script (main.php), given that myInclude.php is calling return when not inside a function.

A) The value "Bar" is the returned to main.php as the result of the include.

B) Both myInclude.php and main.php finish execution immediately

C) Syntax error, you can't return outside of a function

D) none of above

33. What is the output of the following PHP script?

```
$i = 5;
while (--$i > 0) {
   echo $i + 1;
}
```

Enter the exact script output

A) 5432

B) 321

C) 5

D) 4

34. What is the difference between including a script with include() and require()?

A) include() produces a warning if the file cannot be included and continues to process the script

B) include() produces a fatal error if the file cannot be included

C) require() produces a warning if the file cannot be included and continues to process the script

D) All are correct

35. What is the output of the following PHP script?

```
for ($i = 0; $i < 3; $i++) {
   for ($j = 3; $j > 0; $j--) {
      if ($i == $j) {
         break;
      }
      echo $j;
   }
}
```

A) 321321321

B) 321323

C) 313213

D) 332321

36. What is the output of the following PHP script?

```php
$i = ord('a');
do {
    echo chr($i);
} while ($i++ < ord('f') + 1);
```

Enter the exact script output

A) abcdefg

B) abc

C) def

D) nul

37. What is the output of the following script?

```php
$number = 25;
if ($number <= 25) {
    echo "lte";
} else if ($number == 25) {
    echo "e";
} else if ($number >= 25) {
    echo "gte";
} else {
    echo "o";
}
```

Enter the exact script output

A) ltegteo

B) lte

C) gte

D) o

38. How do you comment out code in a PHP script?

A) // Single line comment

B) Commenting is not possible in PHP scripts

C) {* Block comment *}

D) <!-- Block comment -->

39. What is the primary reason for omitting the code ?> in a PHP script?

A) Prevent accidental output of extra spaces or new-lines at the end of a script

B) This is not valid, all PHP code blocks must end in ?>

C) Reduce the size of data being sent to the web browser

D) Prevent conflicts with included ASP and JSP scripts

40. Is the following code valid, or will it cause a syntax error? Note the missing semi-colon at the end of the statement.

<?= "Hello" ?>

 A) valid and will return null

B) Invalid, will cause a syntax error

C) Valid, this will output Hello

D) valid and will return an empty string

41. What is the output of the following PHP script.

$int1 = 25;

$int2 = 10;

$int3 = ceil($int1 / $int2);

$int4 = ceil((int) ($int1 / $int2));

echo $int3 . ' - ' . $int4;

A) null

B) 25 - 2

C) 10 - 25

D) 3 – 2

42. What is the output of the following script. All output values are integers.

echo 100;

echo 0xf;

echo 010;

 A) an error

 B) 158100

 C) 1000xf010

 D) 100158

43. What is the output of the following PHP script.

```
if ("") {
    echo "a";
}
if (1) {
    echo "b";
} else if (-2) {
    echo "c";
}
if ("foo") {
    echo "d";
}
if (array(12)) {
    echo "e";
}
if (array()) {
    echo "f";
}
if ("false") {
    echo "g";
}
```

A) bdeg

B) abc

C) def

D) ade

44. Consider the following PHP script, used to apply a callback function to every element of an array.

```php
function square($val) {
   return pow($val, 2);
}
$arr = [1, 2, 3, 4];
/** line **/
$i = 0;
foreach ($squares as $value) {
   if ($i++ > 0) {
      echo ".";
   }
   echo $value;
}
```

What line of code should be substituted with /** line **/ to achieve an output of 1.4.9.16?

A) $squares = array_map('square', $arr);

B) $squares = array_walk($arr, 'square');

C) $squares = call_user_func_array($arr, 'square');

D) $squares = call_user_func_array('square', $arr);

45. What is the output of the following line of code:

```
$a = 4 << 2 + 1;
echo $a;
```

A) 9

B) 32

C) 16

D) 17

46. What is the output of this line of code?

```
<?= 8 + 0x8 + 80 + 0x80; ?>
```

A) 88

B) 156

C) 224

D) 72

47. What would happen when the following code was run?

```
define('Tree', 'oak');
echo 'This tree is: ' . tree;
```

A) This tree is: tree (and a notice)

B) A notice

C) This tree is: oak (and a notice)

D) An error

48. Which of the following are valid constant names? (Choose three)

A) R7yu

B) ablwesc_99

C) AEN

D) 8rutil

49. What is the output of the following code?

$a = 42 & 05 + 17;

echo $a;

A) 64

B) 17

C) 0

D) 2

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

$a = range(3,9);

foreach ($a as $b) {

  switch($b) {

    case 3:

      $b = 7;

    case 7:

      $b = 3;

    default:

      // do nothing

  }

}

echo implode('-',$a);

A) 3-4-5-6-7-8-9

B) 7-4-5-6-7-8-9

C) 3-4-5-6-7-8-9-10-11

D) 7-4-5-6-3-8-9

51. Which of the following are superglobals in PHP? (choose three)

A) $_SERVER

B) $_COOKIE

C) $_REQUEST

D) $_COOKIES

52. Which of the following is a valid namespace operator in PHP?

A) /

B) ::

C) @

D) \

53. What is the output of the following?

$a = 0xf2 + 0x09;

$b = $a >> 3;

echo $b;

A) 0

B) 31

C) 27

D) 7

54. What is the correct way to add 1 to the `$count` variable?

A) <?php $count++;

B) <?php $count += 1;

C) <?php ++count

D) <?php count++

55. In PHP the error control operator is _____

A) *

B) !

C) @

D) &

56. Which of the following are examples of the new engine executor models available in PHP 5?

A) Switch

B) Goto

C) Call

D) Conditional

57. Which of the following comparisons will evaluate to true?

var_dump(

   't' == t, // Notice

   1 === "1time",

   "top" == 0,

   "top" === 0,

   1 == "1time"

);

A) 't' == t

B) "top" == 0

C) 1 == "1time"

D) 1 === "1time"

58. Identify the best approach to compare two variables in a binary-safe fashion.

A) Both strcmp() and $a === $b

B) $a == $b

C) $a === $b

D) str_compare()

59. Which of the following tags are an acceptable way to begin a PHP Code block(PHP 5.3)? (Choose 3)

A) <SCRIPT LANGUAGE="php">

B) <?php

C) <?

D) <!

60. In PHP 5 you can use the _____ operator to ensure that an object is of a particular type. You can also use _____ in the function declaration.

A) ===, type-hinting

B) instanceof, is_a

C) type, instanceof

D) instanceof, type-hinting