



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY ( EXTERNAL)

*Academic Year 2017 – 2<sup>nd</sup> Year Examination – Semester 3*

***IT3505 – Web Application Development II***

***PART 1 - Multiple Choice Question Paper***

***4<sup>th</sup> June, 2017***

***(ONE HOUR)***

Important Instructions :

- The duration of the paper is **1 (one) hour**.
- The medium of instruction and questions is English.
- The paper has **20 questions** and **8 pages**.
- All questions are of the MCQ (Multiple Choice Questions) type.
- All questions should be answered.
- Each question will have 5 (five) choices with **one or more** correct answers.
- All questions will carry equal marks.
- There will be a penalty for incorrect responses to discourage guessing.
- The mark given for a question will vary from 0 (*All the incorrect choices are marked & no correct choices are marked*) to +1 (*All the correct choices are marked & no incorrect choices are marked*).
- Answers should be marked on the special answer sheet provided.
- Note that questions appear on both sides of the paper.  
If a page is not printed, please inform the supervisor immediately.
- Calculators are **not** allowed.
- Mark the correct choices on the question paper first and then transfer them to the given answer sheet which will be machine marked. **Please completely read and follow the instructions given on the other side of the answer sheet before you shade your correct choices.**

1) Which of the following statements about PHP programming language is/are true?

- (a) PHP scripts are executed by web browsers.
- (b) In PHP scripts, statement terminator is a newline symbol.
- (c) In a PHP script, multiple statements can be coded in a single physical line.
- (d) It is a free format language.
- (e) Eclipse or NetBeans integrated development environments must be used to create PHP scripts.

2) Which of the following statements about jQuery is/are true?

- (a) It is a PHP library.
- (b) When writing JQuery code, the symbol **&** can be used as an alias for jQuery.
- (c) It is written in the JavaScript programming language.
- (d) jQuery selectors are typically used to select (an) HTML element(s).
- (e) jQuery selectors typically return a collection of DOM objects.

3) Consider the following statements about software frameworks.

- i) There is no difference between software libraries and software frameworks.
- ii) When using a software framework to develop an application, the framework defines the control flow of the application.
- iii) All software frameworks should be application specific.
- iv) CodeIgniter is a PHP framework.

Which of the above statements is/are true?

- (a) i) and ii) only
- (b) ii) and iv) only
- (c) i) and iii) only
- (d) i), ii) and iii) only
- (e) ii), iii) and iv) only

- 4) Which of the following statements about MVC design pattern in software development is/are true?

- |  |
|--|
| <p>(a) In software development, the three letters MVC is an acronym for the three terms Multi View Control.</p> <p>(b) Typically, the Controller receives user requests for the application.</p> <p>(c) The View is responsible for managing data.</p> <p>(d) The View uses the data prepared by the Controller to generate a presentable response.</p> <p>(e) The application logic is implemented in the View.</p> |
|--|

- 5) Consider the following statements about the PHP code in an HTML document.

- i) PHP code can be included only in the header section of an HTML document.
- ii) PHP code can be included only in the body section of an HTML document.
- iii) PHP code should be inside **<?php** and **?>** tags.
- iv) If an HTML document is free of errors, users can see the embedded PHP code through a web browser after a web server has processed the document.

Which of the above statements is/are correct?

- |   |   |
|---|---|
| <p>(a) i) only</p> <p>(c) iii) only</p> <p>(e) ii) and iv) only</p> | <p>(b) ii) only</p> <p>(d) i) and iii) only</p> |
|---|---|

- 6) Which of the following literal(s) is/are valid in PHP?

- |                                       |                                   |                    |
|---------------------------------------|-----------------------------------|--------------------|
| <p>(a) True</p> <p>(d) 'isn't it'</p> | <p>(b) 0x3b2</p> <p>(e) '\$a'</p> | <p>(c) 23.2e-2</p> |
|---------------------------------------|-----------------------------------|--------------------|

7) Consider the following PHP script:

```
<?php
echo 12 + " 13 ", "12" . 13;
?>
```

What would be the output of the script when it is executed?

- |            |                   |            |
|------------|-------------------|------------|
| (a) 2525   | (b) 12131213      | (c) 251213 |
| (d) 121325 | (e) Error Message |            |

8) Which of the following PHP scripts display(s) the clause **Inside if** when executed?

- |   |   |
|---|---|
| (a) <?php<br>if(true){<br>echo "Inside if";<br>}<br>?>              | (b) <?php<br>if( True and 0){<br>echo "Inside if";<br>}<br>?>         |
| (c) <?php<br>if( "some text" or 0){<br>echo "Inside if";<br>}<br>?> | (d) <?php<br>if( "some text" and ""){<br>echo "Inside if";<br>}<br>?> |
| (e) <?php<br>\$a = [];<br>if(!\$a){<br>echo "Inside if";<br>}<br>?> |   |

9) Which of the following PHP scripts is/are syntactically valid?

- |   |  |   |
|---|--|---|
| (a)<br><?php<br>\$a = 4<br>echo \$a<br>?>                   | (b)<br><?php<br>\$a = \$b = 4;<br>echo \$a,\$b;<br>?>                                  | (c)<br><?php<br>if \$a = 4{<br>echo \$a;<br>}<br>?> |
| (d)<br><?php<br>if ((\$a = 4) > 0){<br>echo \$a;<br>}<br>?> | (e)<br><?php<br>\$a = 2;<br>while (\$a) {<br>echo "Inside while";<br>\$a--;<br>}<br>?> |   |

10) Which one of the following PHP array declarations is/are valid?

- (a) `$a = array(1,2,3);`
- (b) `$a = array(1='a',2='b',3='c');`
- (c) `$a = array(1=>'a',2=>'b',3=>'c');`
- (d) `$a = array(1->'a',2->'b',3->'c');`
- (e) `$a = array(1=>'a',"2"=>'b',3=>array(1,2));`

11) Which of the following PHP function definitions have syntactic errors?

- (a) `myfun(){ echo "Function";}`
- (b) `function myfun{ echo "Function";}`
- (c) `function myfun(){ echo "Function";}`
- (d) `function myfun($a){ echo "Function";}`
- (e) `function myfun($a = 5){ echo "Function ",$a;}`

12) Consider the following PHP script:

```
<?php
$a = 5;
$b = 9;
function myfun1($a) {

    function myfun2($b) {
        echo $b;
        $b++;
    }
    $b = 4;
    $a++;
    myfun2(2);
    echo $b;

}
myfun1(1);

?>
```

What would be the output of the script when it is executed?

- |        |        |        |
|--------|--------|--------|
| (a) 59 | (b) 94 | (c) 92 |
| (d) 24 | (e) 45 |        |

The follow two questions 13) and 14) are based on the definition given below.

```
<?php
```

```

class Circle{
    private $radius;
    private $x,$y;

    function __construct($x,$y,$r) {
        $this->x = $x;
        $this->y = $y;
        $this->radius = $r;
    }

    function area(){
        return pi()* $this->radius * this->radius;
    }
}
?>

```

13) Which of the following statements about the definition is/are true?

- (a) Both **\$radius** and **area()** are methods of the class.
- (b) The function **area()** can be accessed only by the statements inside the class declaration.
- (c) The function **area()** is a public method of this class.
- (d) The Circle class has a constructor.
- (e) The **\_\_construct (\$x, \$y, \$r)** method is executed automatically whenever new instances of this class are created.

14) Which of the following statement(s) is/are executed without any errors?

- (a) `$c = new Circle();`
- (b) `$c = new Circle(0,0,5);`
- (c) `$c = new Circle(0,0,5); echo $c->area;`
- (d) `echo (new Circle(0,0,5))->area();`
- (e) `$c = new Circle(0,0,5); $c-> x = 5;`

15) What are the values of the JavaScript expressions `(4/0)`, `19 == '19'` and `19 === '19'` respectively ?

- |                           |                            |
|---------------------------|----------------------------|
| (a) 0, 19, 19             | (b) 0, true, true          |
| (c) 4, true, false        | (d) Infinity, false, false |
| (e) Infinity, true, false |                            |

The following questions 16), 17) and 18) are based on the HTML script given below.

```
<!DOCTYPE html>
<html lang="en">
<head>
<title>JQuery Examples</title>
<script src="https://code.jquery.com/jquery-3.2.1.slim.min.js"></script>
</head>
<body>

<script type="text/javascript">
function f1() {
    $('div').each(function(index,item){
        item.innerHTML= "Division "+ index
    })
    $("#button1" ).val('Clicked');
}
</script>
<div name="first">
    first division
</div>
<div name="second">
    second division
</div>
<input type='button' value = 'Click me' id='button1' onclick="f1()">
</script>
</body>
</html>
```

16) Which of the following statements is/are true with respect to the HTML scripts?

- (a) When rendered, it loads the jQuery library from the same folder as the HTML script.
- (b) When rendered, it loads the jQuery library from a CDN.
- (c) The function f1 is invoked immediately after the page is loaded by a browser.
- (d) The function f1 is called only when a user has clicked the button.
- (e) The construct `$('div')` returns DOM objects.

17) Consider the following actions.

- i) Change the content of all div elements.
- ii) Change only the content of the div element with the name "first".
- iii) Change the value of a DOM element based on its id.

Which of the above actions would be done when a user has clicked the button?

- |                       |                      |
|-----------------------|----------------------|
| (a) i) only           | (b) ii) only         |
| (c) iii) only         | (d) i) and iii) only |
| (e) ii) and iii) only |                      |

- 18) Which of the following statement should be included in the function f1, if the background colour of the **div** element with the name “first” has to be changed to red, when the button is clicked?

- (a) `$('#div[0]').css("backgroundColor" : "red")`
- (b) `$('#div[1]').css({ "backgroundColor" : "red" })`
- (c) `$('#div[name="first"]').css("background-color", "red")`
- (d) `$('#div[name="first"]').css({ "backgroundColor" : "red" })`
- (e) `$('#div')[0].css({ "backgroundColor" : "red" })`

- 19) Which of the following statements about jQuery is/are true?

- (a) The jQuery method `.ajaxSend()` attaches a function to be executed before an Ajax request is sent.
- (b) The jQuery method `.ajaxSend()` attaches a function to be executed after an Ajax request is sent.
- (c) The construct `$(domElement)` can be used to convert a DOM element to a jQuery object.
- (d) The construct `jQuery.getJSON()` loads JSON-encoded data from the server using a GET HTTP request.
- (e) The construct `jQuery.getJSON()` loads JSON-encoded data from the server using a POST HTTP request.

- 20) Which of the following statements about web services is/are correct?

- (a) WSDL is a meta language used to describe web services.
- (b) WSDL is based on XML.
- (c) The main function of a service registry is to monitor web service requests.
- (d) A web service is a software system designed to support interoperable machine-to-machine interaction over a network.
- (e) UDDI defines the data transfer protocol used in a web service.

\*\*\*\*\*