



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)

Academic Year 2019 – 2nd Year Examination – Semester 3

IT3505 – Web Application Development II

Part 1 - Multiple Choice Question Paper

30th June, 2019

(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 **9 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.
- 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 is/are true about Web programming?

- (a) JavaScripts can be executed by the Chrome browser at the client side.
- (b) JavaScripts are executed by the Apache server.
- (c) PHP scripts can be executed by the Chrome browser at the client side.
- (d) PHP scripts are executed by the Apache server.
- (e) JavaScripts is a different name give for the Java programming language.

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

- (a) It is a stateless protocol.
- (b) It specifies how to transfer hypertext between two computers in a network.
- (c) When requesting a file through HTTP, clients must specify the URLs of the files.
- (d) An HTTP server would not respond to all requests made by the clients.
- (e) It typically uses services of TCP on port 8080.

3) Consider the following statements about client-side/server-side programming used in Web application development.

- i) PHP is a server-side development language.
- ii) JavaScript can be used only for client-side programming.
- iii) Client-side programs and Server-side programs may run on computers with different operating systems.

Which of the above statements is/are true?

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

4) Consider the following statements about the Common Gateway Interface (CGI).

- i) It is a programming language.
- ii) It specifies a platform-independent interface for HTTP servers to communicate with CGI scripts.
- iii) It uses meta variables to carry information from the server to the GGI Scripts.

Which of the above statements is/are true?

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

5) Consider following statement about AJAX.

- i) The acronym AJAX stands for Auto JavaScript and XML
- ii) AJAX allows HTML pages to display different content without reloading the page.
- iii) AJAX is a highly secured way to transmit data to a server application.

Which of the above statements is/are true?

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

6) Consider following statement about the PHP programming language.

- i) All variable names should start with the symbol \$.
- ii) Only way to include comments is by using the symbol sequence //.
- iii) Variable names are case sensitive whereas function names are not.

Which of the above statements is/are correct?

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

7) Consider the following PHP script:

```
<?php
$a = 1;
$b = 2;
echo $a+$b, "$a+$b", '$a+$b';
?>
```

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

- | | | |
|-----------------|---------------------|--------------|
| (a) 333 | (b) 1233 | (c) 33\$a\$b |
| (d) 31+2\$a+\$b | (e) 3\$a+\$b\$a+\$b | |

8) Consider following statement about PHP data types.

- i) A string is a sequence of characters inside single or double quotes.
- ii) 0xab is a valid integer.
- iii) 10.36 is a valid integer.

Which of the above statements is/are true?

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

9) Consider the following PHP code segment:

```
if ($a <= $b and $b <= $c) {  
    echo "True";  
}
```

Which of the following values for variable \$a, \$b and \$c, respectively, would produce an output 'True'?

- | | |
|-----------|-----------|
| (a) 1,2,3 | (b) 3,2,1 |
| (c) 1,1,1 | (d) 1,3,2 |
| (e) 2,3,1 | |

10) Consider the following PHP script:

```
<?php  
$a = "2ab";  
$b = "23";  
echo $a+$b,$a.$b;  
?>
```

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

- | | | |
|----------------|---------------|---------------|
| (a) 2ab232ab23 | (b) 252ab23 | (c) 25ab2ab23 |
| (d) 2ab2325 | (e) 2ab2325ab | |

11) Which one of the following is/are syntactically valid definition(s) of a PHP function?

- (a) function echo "abcd";
- (b) function test(){echo "abcd";}
- (c) void test{echo "abcd";}
- (d) test(\$a){echo "abcd";}
- (e) function test(\$a){echo "abcd";}

12) Consider the following PHP script:

```
<?php
function foo() {
    static $count1 = 0;
    $count2 = 0;
    echo $count1++; echo ++$count2;
}

?>
```

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

- | | | |
|----------|---------------|----------|
| (a) 0011 | (b) 0111 | (c) 0101 |
| (d) 1011 | (e) No output | |

13) Consider the following PHP script:

```
<?php
$a = array(1,2,3,4,5);
$x = 0;
$i = 1;
while ($i < 4){
    if ($i % 2 == 0){
        $x = $x + $a[$i];
    }
    $i++;
}
echo $x;

?>
```

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

- | | | |
|-------|--------|-------|
| (a) 3 | (b) 5 | (c) 6 |
| (d) 9 | (e) 14 | |

14) Consider the following JavaScript:

```
var student = {  
    name : "Saman",  
    age : 20  
};
```

Which of the following statement/s can be used to change the value of the property age of the student object to the integer literal 10?

- | | |
|--------------------------|--------------------------|
| (a) student["age"]="10"; | (b) student.age = "10"; |
| (c) student.age=10 | (d) student[age] = "10"; |
| (e) student["age"]=10; | |

15) Consider the following JavaScript:

```
<?php  
$a = array(1=>"a",2=>"b",3=>"c",4=>"d");  
$x = 0;  
$y = "";  
foreach ($a as $i=>$j){  
    $x += $i;  
    $y .= $j;  
}  
echo $x,"-",$y;  
?>
```

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

- | | | |
|-------------|----------|---------------|
| (a) 1234 | (b) abcd | (c) 1234-abcd |
| (d) 10-abcd | (e) 1-1 | |

16) Which of the following statements about JQuery is/are correct?

- | |
|--|
| (a) JQuery is a PHP library. |
| (b) JQuery is a JavaScript library. |
| (c) JQuery is essential to code JavaScript applications. |
| (d) JQuery is based on the PHP language. |
| (e) JQuery is based on the JavaScript language. |

17) Which of the following statements about JQuery is/are correct?

- (a) JQuery code can be run on almost all popular browsers.
- (b) JQuery is extensible.
- (c) JQuery can be downloaded only as a compressed file.
- (d) JQuery support database connections.
- (e) JQuery has many plugins.

18) Consider the following HTML script.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <script src="jquery.min.js"></script>
  <script type = "text/javascript">
    $('document').ready(function (){
      alert("OK");
    });
  </script>
</head>
<body>
</body>
</html>
```

Which of the following statements is/are true about the HTML script?

- (a) It can be executed correctly only when internet connection is available.
- (b) The script uses the JQuery library.
- (c) To run this script without any errors **jquery.min.js** library should exist in the same folder as this HTML script.
- (d) When the script is rendered on a browser a button with the label “Button” would appear on the screen.
- (e) This script renders without any errors only on the Google Chrome browser but will produce errors when rendered on the Mozilla Firefox.

19) Which of the following statements about MVC design pattern is/are correct?

- (a) MVC is an acronym for the three words “Model Validation Control “.
- (b) Laravel is a popular framework based on the MVC design pattern.
- (c) The model of an MVC is responsible for interacting with data.
- (d) When using an MVC based framework the data must be stored in a relational database.
- (e) The Controller is responsible for receiving data from the views and passing the processed data back to the view.

20) Consider the following PHP script:

```
<?php
class Student{
    private $id = null;
    public $name = null;

    function __construct($id,$name="") {
        $this->id = $id; $this->name = $name;
    }
    public function set_name($name){
        $this->name = $name;
    }
}
?>
```

Which of the following PHP codes will create a PHP object named **\$x** with values for its attributes **\$id** and **\$name** as **1** and **"Nimal"** respectively?

- (a) `$x = new Student(1, "Nimal");`
- (b) `$x = new Student("Nimal")`
- (c) `$x = new Student("Nimal",1)`
- (d) `$x = new Student(1); $x->set_name("Nimal");`
- (e) `$x = new Student("Nimal"); $x->id = 1;`
