

Instructions

1. This test consists of two(2) questions. Attempt all questions
2. Write your name and registration number on each of your answer sheet
3. This test carries 20 marks
4. Duration: **60 Minutes**

QUESTION ONE (9.5 marks)

(a) For each of the following, choose the most correct answer and write its letter on the answer sheet (0.5 mark each)

(i) What type of language id HTML?

- (A) Scripting Language
(B) Markup Language
(C) Programming Language
(D) Network Protocol

(ii) What is the correct JavaScript syntax to change the content of HTML element below?

<p id="demo">This is a demonstration.</p>

- (A) document.getElement("p").innerHTML = "Hello World!";
(B) #demo.innerHTML = "Hello World!";
(C) document.getElementById("demo").innerHTML = "Hello World!";
(D) document.getElementByName("p").innerHTML = "Hello World!";

(iii) Where is the correct place to insert a JavaScript?

- (A)** The <body> section
(B) The <head> section
(C) The <title> section
(D) Both the <head> section and the <body> section are correct

(iv) What is the correct HTML for referring to an external style sheet?

- (A)** <link rel="stylesheet" type="text/css" href="mystyle.css">
(B) <style src="mystyle.css">
(C) <stylesheet>mystyle.css</stylesheet>
(D) <style rel="mystyle.css">

(v) Which is the correct CSS syntax?

- (A)** body {color: black;}
(B) body;color=black;
(C) {body;color=black;}
(D) {body;color:black;}

(vi) What is the correct way to add 1 to the \$count variable in Javascript?

- (A) count++;
- (B) ++count
- (C) \$count =+1
- (D) \$count++;

(vii) How can you make a bulleted list with numbers in HTML?

- (A) <dl>
- (B)
- (C) <list>
- (D)

(viii) What tag is used to display a picture in a HTML page?

- (A) picture
- (B) image
- (C) img
- (D) src

(ix) Which HTML attribute is used to define inline styles?

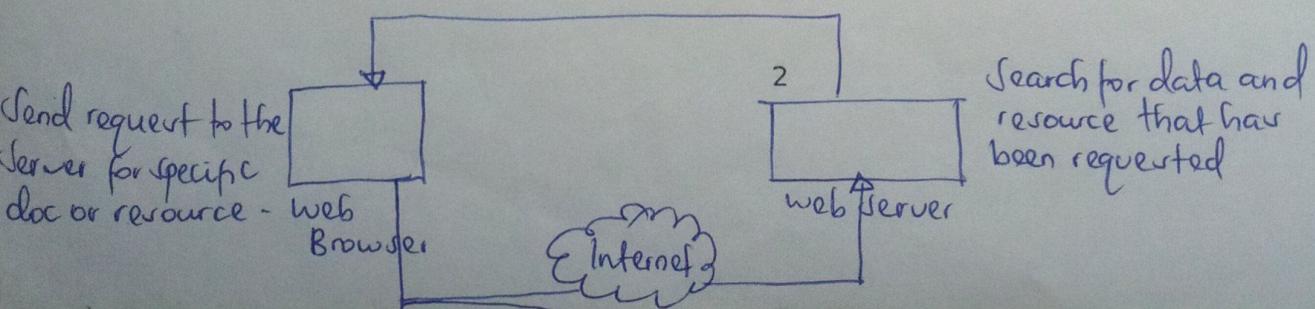
- (A) Font
- (B) Class
- (C) Styles
- (D) Style

(x) Which HTML tag produces the biggest heading?

- (A) <h7>
- (B) <h9>
- (C) <h4>
- (D) <h1>

(b) State whether each of the following statements is TRUE or FALSE. Write your answer in the answer sheet (0.5 mark each)

- TRUE*
- (i) JavaScript does not require variables to have a type before they can be used in a script. *TRUE*
 - (ii) The following are all valid variable names: _under_bar_ , m928134 , t5 , j7 , her_sales\$, his_\$account_total , a , b\$, c , z , z2 *TRUE*
 - (iii) A valid JavaScript arithmetic expression with no parentheses is evaluated from left to right. *TRUE FALSE* ~~because evaluation based on rule of precedence~~
 - (iv) <meta> tag cannot be defined in the <head> tag. *FALSE*



- (c) Fill in the blanks in each of the following statements: (0.5 mark each)
- (i) Comments are used to document a program and improve its readability.
 - (ii) A dialog capable of receiving input from the user is displayed with method of object Prompt.
 - (iii) A JavaScript statement that makes a decision is the IF statement.
 - (iv) Calculations are normally performed by Arithmetic operators.
 - (v) A dialog capable of showing a message to the user is displayed with method of object Alert.

QUESTION TWO (10.5 marks)

- (a) With the aid of a diagram, brief explain the Client -Server model as applied to web applications. (2 marks)
- (b) What is the function of each of the elements of a table in HTML? (0.5 mark each)
 - (i) td - To show table data
 - (ii) th - To show table header
- (c) Categorize each of the following as either an element or an attribute: (0.5 mark each)
 - (i) br is Element
 - (ii) placeholder is Attribute
- (d) What displays in the message dialog when each of the given JavaScript statements is performed? Assume that $x = 2$ and $y = 3$. (0.5 mark each)
 - (i) `window.alert("x = " + x);` $x=2$
 - (ii) `window.alert((x + y) + " = " + (y + x));` $5=5$
- (e) Write JavaScript statements that accomplish each of the following task: (0.5 mark each)
 - (i) Display the message "Enter two numbers" using the window object.
 - (ii) Assign the product of variables b and c to variable a.
- (f) Describe the following ways of passing arguments to JavaScript functions/methods: (1 mark each)
 - (i) Pass-by-value
 - (ii) Pass-by-reference
- (g) With an example, briefly explain each part of a URL (1 mark)
- (h) With examples, describe 3 ways/techniques for using CSS in HTML documents? (1.5 marks)

i) `<script type = "text/javascript">`
 `<!--`
 `window.alert("Enter two numbers");`
 `//-->`
`</script>`

Call by Value - Means caller and callee have the independent Variable with same value. If the callee modifier the variable, effect reaches to the caller.

Pass by Reference - Means the caller and callee have same Variable and same value. If the callee modifier the variable effect seen to the caller.

ii) `<script type = "text/javascript">` 3
 `<!--`
 `Var a;`
 `Var b;`
 `Var c;`
 `a = b + c;`
 `//-->`
`</script>`

IS181 TEST 1

May 7th, 2019

Instructions

1. This test consists of Two(2) questions. Attempt all questions, This test carries 20 marks
2. Write your name and registration number on each of your answer sheet
3. Duration: 60 Minutes

QUESTION ONE (12.5 marks)

- (a) For each of the following, choose the most correct answer and write its letter on the answer sheet (0.5 marks each)
- (i) What is the correct JavaScript syntax to change the content of HTML element below?
<p id="demo">This is a demonstration.</p>
- (A) document.getElement("p").innerHTML = "Hello World!";
(B) #demo.innerHTML = "Hello World!";
(C) document.getElementById("demo").innerHTML = "Hello World!"; ✓
(D) document.getElementByName("p").innerHTML = "Hello World!";
- (ii) Where is the correct place to insert a JavaScript?
- (A) The <body> section
(B) The <head> section
(C) The <title> section
(D) Both the <head> section and the <body> section are correct
- (iii) What is the correct HTML for referring to an external style sheet?
- (A) <link rel="stylesheet" type="text/css" href="mystyle.css">
(B) <style src="mystyle.css">
(C) <stylesheet>mystyle.css</stylesheet>
(D) <style rel="mystyle.css">
- (iv) Which is the correct CSS syntax?
- (A) body {color: black;}
(B) body:color=black;
(C) {body:color=black;}
(D) {body;color:black;}
- (v) What is the correct way to add 1 to the \$count variable in Javascript?
- (A) count++;
(B) ++count
(C) \$count =+1
(D) \$count++;

- (vi) How can you make a bulleted list with numbers in HTML?
(A) <dl>
(B)
(C) <list>
(D)
- (vii) What tag is used to display a picture in a HTML page?
(A) picture
(B) image
(C) img
(D) src
- (viii) Which HTML attribute is used to define inline styles?
(A) Font
(B) Class
(C) Styles
(D) Style
- (ix) Which of the following HTML tags is used to make an e-mail link?
(A)
(B) < a mail href ="xxx@yyy.een">
(C) <mail>mailto:xxx@yyy.com</mail>
(D)
- (x) What is the function of "marquee" tag in HTML?
(A) Marks the list of items to maintain in queue
(B) Marks the text so that it is hidden in browser
(C) Displays text with scrolling effect
(D) None of above
- (xi) Which of the following symbols do all variables in PHP start with?
(A) &
(B) !
(C) \$
(D) #
- (xii) What is the correct way to declare a JavaScript array?
(A) var txt = new Array ("tim", "kim", "jim")
(B) var txt = new Array: 1= ("tim") 2= ("kim") 3= ("jim")
(C) var txt = new Array: (1:"tim", 2:"kim", 3:"jim")
(D) var txt = new Array = "tim", "kim", "jim"

- (xiii) In JavaScript, what does the "this" keyword refers to:
- (A) Refers to the entire HTML tag for the current object
 - (B) Refers to the event handler in the HTML tag for the current object
 - (C) Refers to the value field in the HTML tag for the current object
 - (D) None of the above
- (xiv) An application which allows two machines to communicate using a socket requires
- (A) One of the machines to implement the HTTP protocol
 - (B) Both machine to implement client capabilities, and one of them to implement server capabilities
 - (C) Both machines to use the same source code, but one must be told to open the socket first
 - (D) One of them must implement a server socket and the other one a client socket
- (xv) Select the incorrect statement about PHP Programming language
- (A) Classes are case-insensitive
 - (B) Functions are case-insensitive
 - (C) Variable are case-insensitive
 - (D) Constants are case-sensitive
- (b) State whether each of the following statements is TRUE or FALSE. If false, explain why (0.5 marks each)
- (i) JavaScript does not require variables to have a type before they can be used in a script.
 - (ii) The following are all valid Javascript variable names: _under_bar_ , m928134 , t5 , j7 , her_sales\$, his\$_account_total , a , b\$, c , z , z2
 - (iii) A valid JavaScript arithmetic expression with no parentheses is evaluated from left to right.
 - (iv) XML is an executable language.
 - (v) Hyperlinks are denoted by link elements.
- (c) Fill in the blanks in each of the following statements: (0.5 marks each)
- (i) _____ are used to document a program and improve its readability.
 - (ii) A dialog capable of receiving input from the user is displayed with method of object _____
 - (iii) A JavaScript statement that makes a decision is the _____ statement.
 - (iv) Calculations are normally performed by _____ operators.
 - (v) A dialog capable of showing a message to the user is displayed with method of object _____

QUESTION TWO (7.5 marks)

- (a) With the aid of a diagram, briefly explain the Client –Server model as applied to web applications. (1.5 marks)
- (b) With an example, briefly explain each part of a URL (1 mark)
- (c) Categorize each of the following as either an element or an attribute: (0.5 marks each)
- (i) br
 - (ii) width
- (d) What displays in the message dialog when each of the given JavaScript statements is performed? Assume that $x = 2$ and $y = 3$. (0.5 marks each)
- (i) `window.alert("x = " + x);`
 - (ii) `window.alert((x + y) + " = " + (y + x));`
- (e) Write JavaScript statements that accomplish each of the following task: (0.5 marks each)
- (i) Display the message "Enter two numbers" using the window object.
 - (ii) Assign the product of variables b and c to variable a.
- (f) What is the output for each of the following PHP code? (1 mark each)
- (i)

```
<?php
    $total=0;
    for($i=0;$i<4;$i++){
        $total=$total+$i;
    }
    echo $total;
?>
```
 - (ii)

```
<?php
    $i=0;
    while($i<=10){
        if($i<=5){
            continue;
        }
        print($i);
        $i=$i+1;
    }
?>
```

1, 2, 3
1² + 1 =

678910

Instructions

1. This test consists of two (2) questions. Attempt all questions
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QUESTION 1 (7.5 marks)

- (a) For each of the following, choose the most correct answer and write its letter on the answer sheet (0.5 mark each)
- (i) Pretty Good Privacy (PGP) provides...?
(A) Confidentiality, integrity, and authenticity.
(B) Integrity, availability, and authentication.
(C) Availability, authentication, and non-repudiation.
(D) Authorization, non-repudiation, and confidentiality
- (ii) Select the incorrect statement about PHP Programming language
(A) Classes are case-insensitive
(B) Functions are case-insensitive
(C) Variable are case-insensitive
(D) Constants are case-sensitive
- (iii) PHP configuration settings are maintained in
(A) pws-php5cgi.reg
(B) php.ini
(C) httpd.conf
(D) http-info.conf
- (iv) What is the correct way to create a function in PHP?
(A) new_function myFunction()
(B) function myFunction()
(C) create myFunction()
(D) new myFunction()
- (v) Which operator is used to check if two values are equal and of same data type?
(A) ==
(B) !=
(C) =
(D) ===

- (vi) Which of the following mechanism is used to achieve non-repudiation of a message delivery?
- (A) Sender encrypts the message with the recipients' public key and signs it with their own private key.
 - (B) Sender computes a digest of the message and sends it to a Trusted Third Party (TTP) who signs it and stores it for later reference.
 - (C) Sender sends the message to a TTP who signs it together with a time stamp and sends it on to the recipient.
 - (D) Sender gets a digitally signed acknowledgment from the recipient containing a copy or digest of the message.
- (vii) Which super global variable holds information about headers, paths, and script locations?
- (A) \$_SESSION
 - (B) \$_GLOBALS
 - (C) \$_GET
 - (D) \$_SERVER
- (viii) The following are functions of a DBMS except _____.
- (A) Creating and processing forms
 - (B) Creating databases
 - (C) Processing data
 - (D) Administrating databases
- (ix) Which of these is an example of a B2B transaction?
- (A) A consumer buys a computer from Amazon.com
 - (B) Amazon.com buys computers from Lenovo
 - (C) Amazon.com buys computers an individual made himself
 - (D) A government agency buys computers from newegg.com
- (x) Under what circumstance might a certification authority (CA) revoke a certificate?
- (A) The certificate owner has not utilized the certificate for an extended period
 - (B) The certificate owner public key has been compromised
 - (C) The certificate owner' private key has been compromised
 - (D) The certificate owner has upgraded his/her web browser
- (b) State whether each of the following is **TRUE** or **FALSE**. If false, Explain why. (*0.5 marks each*)
- (i) PHP script is never in the same file as XHTML script.
 - (ii) The settype function only temporarily changes the type of a variable.

- (iii) Conversion between data types happens automatically when a variable is used in a context that requires a different data type.
- (iv) The foreach statement is designed specifically for iterating over arrays.
- (v) Relational operators can only be used for numeric comparison.

QUESTION 2 (12.5 marks)

- (a) In relation to PHP, briefly explain the following: (1 mark each)
 - (i) Global Variable *Superglobal variable - access global variable from anywhere in PHP Script*
 - (ii) Function overloading
 - (iii) \$_SERVER
- (b) With an example of PHP statement, how can you declare a variable which are accessible in other functions of a PHP script? (2 marks)
- (c) Identify and correct the error in each of the following PHP code segments: (1 mark)
 - (i) <?php print("Hello World"); >
 - (ii) <?php
 \$name = "Paul";
 print ("\$Name");
 ?>
- (d) Briefly describe the concept of Client-Side Caching. Give one advantage and one disadvantage of using it. (1.5 marks)
- (e) Outline four ranking criteria used by search engines for ranking search results (2 marks)
- (f) With examples, differentiate between the following: (3 marks)
 - (i) SSL and SSH
 - (ii) Session and Cookie
 - (iii) Privacy and Security

< ? PHP
\$GLOBAL
?>

SSL - Secure Socket Layer SSH - Secure Shell

data values used in
multipl. pages
not in users disk

in users disk

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QUESTION 1 (10 marks)

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(C) httpd.conf
(D) http-info.conf
- (ii) Which operator is used to check if two values are equal and of same data type in PHP?
(A) ==
(B) !=
(C) =
(D) ===
- (iii) Pretty Good Privacy (PGP) provides...?
(A) Confidentiality, integrity, and authenticity.
(B) Integrity, availability, and authentication.
(C) Availability, authentication, and non-repudiation.
(D) Authorization, non-repudiation, and confidentiality
- (iv) What is the correct way to create a function in PHP?
(A) new_function myFunction()
(B) function myFunction()
(C) create myFunction()
(D) new myFunction()
- (v) The following are functions of a DBMS except _____.
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(B) Creating databases
(C) Processing data
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- (A) Sender encrypts the message with the recipients' public key and signs it with their own private key.
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- (A) The certificate owner has not utilized the certificate for an extended period
 - (B) The certificate owner public key has been compromised
 - (C) The certificate owner' private key has been compromised
 - (D) The certificate owner has upgraded his/her web browser
- (x) What is the advantage of Rivest, Shamir, Adelman (RSA) public key system over the Digital Signature Algorithm (DSA)?
- (A) It uses the secure hash algorithm to condense a message before signing.
 - (B) It can be used for encryption.
 - (C) It cannot be compromised through substitution.
 - (D) It uses the function of escrowed encryption.

- (b) State whether each of the following is **TRUE** or **FALSE**. If false, explain why. (0.5 marks each)
- (i) PHP script is never in the same file as XHTML script.
 - (ii) The `settype` function only temporarily changes the type of a variable.
 - (iii) Conversion between data types happens automatically when a variable is used in a context that requires a different data type.
 - (iv) The `foreach` statement is designed specifically for iterating over arrays.
 - (v) Relational operators can only be used for numeric comparison.
 - (vi) Function `die` never takes arguments.
 - (vii) Web servers and clients communicate with each other through the platform-independent HTTP.
 - (viii) A virtual directory is an alias for an existing directory on a remote machine.
 - (ix) The path in a URL normally specifies the location of an actual directory on the server.
 - (x) Cookies are stored on the server computer.

QUESTION 2 (10 Marks)

- (a) With examples, differentiate between the following: (2 marks)
- (i) GET method and POST method
 - (ii) Local variable and global variable in PHP
- (b) Outline four components that search engines cannot see when crawling on the web (2 marks)
- (c) Identify and correct the error in each of the following PHP code examples: (1 mark)
- (i) `<?php print("Hello World"); >`
 - (ii) `<?php
 $name = "Paul";
 print ("$Name");
?>`
- (d) With an example of PHP statement, how can you declare a variable which are accessible in other functions of a PHP script? (1 mark)
- (e) Write a PHP script that inserts a new item in an array in any position.(2 marks)
- (f) Write a PHP function to check a number is prime or not.(2 marks)