

Q 2 (a) With an example show text formatting in HTML.

Answer

The bold text tag is :

This will be in bold.

If you want italics, use the <I> tag, as follows:

This will be <I>in italics</I>.

Finally, for underlined text, the appropriate tag is <U>, which follows the same pattern:

This will be <U>underlined</U>.

You can nest these tags, giving the following HTML fragment:

```
<HTML>
<HEAD>
  <TITLE>Bold, Italics and Underlined</TITLE>
</HEAD>
<BODY>
  This is <B>bold text</B>.<BR /><BR />
  This is <I>italicized text</I>.<BR /><BR />
  This is <U>underlined text</U>.<BR /><BR />
  This is <B>bold +<I>italicized +<U>underlined</U></I></B>.
</BODY>
</HTML>
```

Q 2 (b) Write and explain the general structure of an HTML document. Give an example.

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Q 3 (a) Explain Javascript rollover facility. Write and explain HTML page for the rollover.

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Q 4 (a) Which are the three parts of style sheets and how do you set them up?

Answer

A style consists of three parts:

- The selector—The object, or part of the HTML document
- The property—The attribute (property) of the object
- The value—A valid value for that property.

Setting them up.

Q 4 (b) What are pseudo classes? List and explain different types of pseudo classes?

Answer

There are some elements that do not fall into this framework, or do not have specific default classes attached to them. For example, actions such as hovering over or clicking

on a link can be applied to multiple elements, and their style information is contained within pseudo-classes.

Different types of pseudo classes:

- Link pseudo classes
- Dynamic pseudo classes

Q 5 (a) Explain the variables and data types of JavaScript. Also outline the structure of a JavaScript program.

Answer

- null, undefined—nothing, empty, and undefined (these are not the same)
- Numbers—Integers or floating point numbers
- Boolean values—true or false
- Character strings—"a" or "a string"

Q 5 (b) Explain different types of data validation procedures in JavaScript

Answer

On Abort This event occurs when the user interrupts the loading of a page. The OnAbort event should only be trapped once for the HTML document as a whole and is used with img tags.

onBlur This event occurs when an element in a page or when the window containing a page loses focus—that is, the user moves away from it by using the Tab button. It only applies to interactive form elements and the window object.

onChange This event occurs when the content of an interactive form element changes. This only applies to those elements that have selectable or userentered values. For example, the Google Suggest service traps this event in order to populate the list of suggested search terms.

onClick This event occurs when an object on a document is clicked—that is, a form button (including checkboxes and radio buttons) or a link. Because a click is a combination of a mouseDown and mouseUp event, clicks can be trapped separately with their own handlers.

onDbClick This event is the same as the onClick event, except that it is triggered when the user double-clicks a control.

onFocus This event is the opposite of onBlur, that is, it is triggered when the focus moves to a control on a form.

Q 6 (a) Write a program in Perl to display the elements of a linked list. Give suitable comments and explain functions used in it.

Answer

A user-defined function is declared as follows:

```
function myFunction ( myParameter, myParameter ) {  
    // My code statements  
}
```

The code between the braces (`{}` and `}`) is executed when the function `myFunction` is used by name with the correct number of parameters in another code block. This is called calling the function. You call the code between braces a code block, in this case a named code block. Other constructs for decision making and looping (repetitive statements) also use code blocks contained in between braces.

A function can also return a value, which can be used for ongoing processing. An example of a function that returns a value is as follows:

```
function myFunction ( myParameter, myParameter ) {
    // My code statements
    return myReturnValue;
}
```

The type of `myReturnValue` can be anything that JavaScript supports, even objects. It can be denoted as a variable, as in the previous example, or as a literal. So, an equally valid return statement might be:

```
return true;
```

Q 6 (b) Give syntax, example and explanation of following functions in Perl which operate on arrays: `Join()`, `Splice()`.

Answer

```
#!/usr/local/bin/perl
print "Content-type: text/plain", "\n\n";
$count_file = "/usr/local/bin/httpd_1.4.2/count.txt";
if (open (FILE, "<" . $count_file)) {
    $no_accesses = <FILE>;
    close (FILE);
    if (open (FILE, ">" . $count_file)) {
        $no_accesses++;
        print FILE $no_accesses;
        close (FILE);
        print $no_accesses;
    } else {
        print "[ Can't write to the data file! Counter not incremented! ]", "\n";
    }
} else {
    print "[ Sorry! Can't read from the counter data file ]", "\n";
}
exit (0);
```

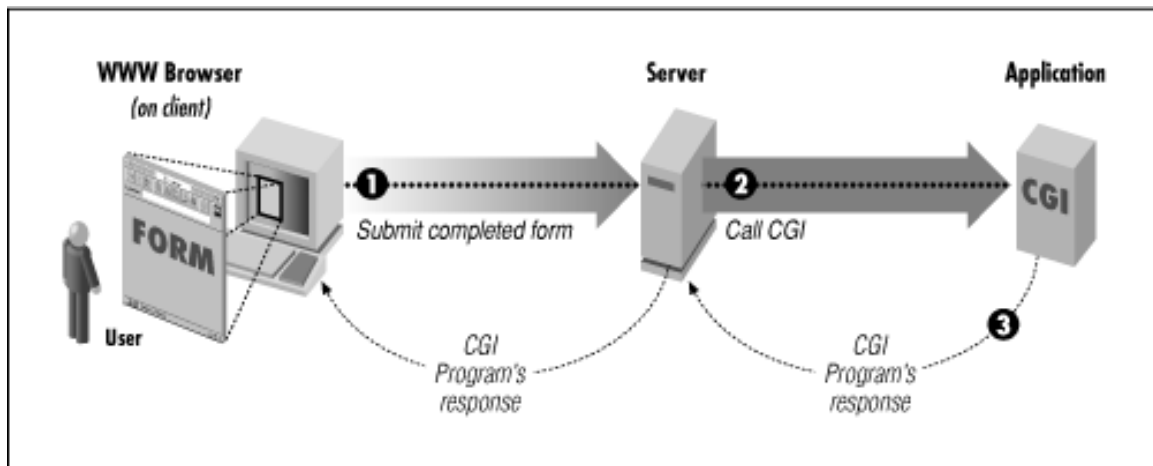
Q 7 (a) Write notes on the following:

(i) `cgi.pm` (ii) cookies

Answer

CGI is the part of the Web server that can communicate with other programs running on the server. With CGI, the Web server can call up a program, while passing user-specific data to the program (such as what host the user is connecting from, or input

the user has supplied using HTML form syntax). The program then processes that data and the server passes the program's response back to the Web browser.



(ii) cookies

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Q 8 (a) Explain how do you create inline PHP?

Answer

Inline PHP code can be put in an otherwise normal HTML file, which follows the usual structure, but contains, in places, specially quoted code. The correct way to break out of HTML and introduce some PHP is as follows:

```
<body>
<b>This is HTML.</b>
<?php
// PHP code here
?>
<b>This is also HTML.</b>
</body>
```

The server evaluates the PHP code by passing it to the pre-processor, which allows the programmer to write PHP code that can create HTML statements. This uses one of the built-in features of PHP, the echo statement. An example of this is as follows:

```
<?php
echo "<b>Bold Text</b>";
?>
```

Because PHP has constructs for selective, repetitive, and conditional processing, this means that you can create blocks of code that generate HTML on the same basis. So, for example, you can choose the background color of a document based on input from the user, if you wanted to.

Q 8 (b) Explain the following core functions of PHP: eval, die, unset, getdate

Answer

Integer: Any 32-bit number can be stored in an integer, giving a large scope of values, both positive and negative. There is no unsigned version, so there will be an architecture-dependent limit on the size of value that can be stored there. Integers can be cast from floating point numbers, but this will cause the result to be rounded down to the lowest integer value. The round() function is available to round the cast properly. This would be necessary when rounding the result of an integer division:

```
$one = 1;
$two = 2;
$my_result = $one / $two; // == 0.5
echo (int) $my_result; // 0
echo round ( $my_result ); // 1
```

The reason for the cast is that there is no integer division in PHP, so the result is always a floating point number.

Float: (also called a double) These are equivalent in PHP, and can store a precision of roughly 14 digits, as in the IEEE standard for 64-bit floating point number representation. You can use the usual mathematical operators with both floating point and integer numbers, as you would expect.

String: The PHP string is a very important data type, as it is used for a variety of purposes. A string can be created by placing single or double quotes around it, for example:

```
$my_string = "hello";
$my_other_string = 'goodbye';
```

Q 9 (a) Give example and meaning of any four control characters in DTD.

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Q 9 (b) What is parsing? Describe XML parsers

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Text Book

**Web Programming – Building Internet Applications, Chris Bates, Third Edition,
Wiley Student Edition, 2006**