

CMPSCI 120 Spring 2011
Review Questions for Midterm #2

GENERAL

What is concatenation?
What is a factorial?
Compute 5! and show your work.
What is a protocol?
What is a pixel?
What is the IP address of `elsrv3.cs.umass.edu`?
What does CGI stand for?
Where are CGI files stored?

UNIX

What do the 9 permission letters represent (`rw-rw-rw-`)?
For the permission patterns of `rw-rw-rw-`, what do each of the letters mean, and what are the three categories?
What do the different letters stand for when setting permissions and how do you know if you have the permission or not?
What is the command used to see which folder you are currently in? What does this stand for?
What is the permissions code for user and group to have full access but others have none?
What does the `ls` command do?
What is the text editor we use for creating/modifying code?
Does UNIX typically show you the results of the commands you type in?
What do the permissions `rw-r--r--` mean? What is an easy way to set them?
What does each permission letter stand for in UNIX?
What does `chmod 755 filename` do to the permissions on the file?
When you open a telnet connection to the `elsrv3` server, is UNIX running on your PC/Mac?
What function does `ls -al` perform?
Explain the meaning of the following permissions setting: `-rw-rw-r--`
What is the `cd ..` command used for?
What does `pwd` stand for and what does it mean?
What folder contains Web files?
Explain what happens when you type `mkdir public_html`
In order to change the permissions of access to a file, one should use what command?
What is considered the "wildcard" symbol in UNIX?
What is emacs?
What does `cd foldername` do in UNIX?
What do you type in the telnet command prompt to bring you back to the root directory of the server you are connected to?
If you don't have an account on a server what do you write as the username and password?
In UNIX, how do you set permissions for all the files in the current folder where user has read and write permission and group and others have read permission?

GRAPHICS

Describe the aspects of both lossy and lossless compression.

Define lossless and lossy compression. What image types utilize which compressions? Which would you choose for a photographed image? A cartoon image?

On graphics on the computer, where would the pixel <0,0> be located?

What file format was considered controversial during the 1980s-1990s because of patent issues?

What is a .ico file?

What are the differences between .jpg, .gif, and .png files?

What are the pros and cons of a .jpg file?

What is saving a file as a .jpg good for?

How many colors does .png support?

What is a favicon?

What extension will you find on a favicon?

How many colors can be displayed on a favicon?

What size (in bytes) is a favicon?

What is the size, in pixels, of the favicon.ico file? What is the color depth?

What image type supports only up to 256 colors maximum?

What process has been implemented in order to "smooth out" letters found in pictures?

What is anti-aliasing?

What type of image would be best for representing a cartoon? Explain your reasoning.

How do you figure out what the coordinates are in a pixel-based (bitmapped) image?

TELNET

What is telnet?

What was one of the problems with traditional telnet and ftp as they were first built?

With a telnet session what will the server do if you have 3-4 failed log-ons in a row?

What is the difference between telnet and ftp?

Is telnet, ftp or both of these programs embedded in the PuTTY program?

FTP

How do we move files from one place to another?

What does FTP stand for?

What is the File Transfer Protocol?

Which FTP program is used on a Mac and which is used on a PC?

What is WinSCP used for?

What is Fugu used for?

What is the difference between FTP, SCP, and SFTP?

In WinSCP what kind of things do you use the Text transfer setting?

When using FTP why is it best to set files to binary when transferring files?

When copying files from your local machine to the server, what transfer method should you use for a file saved in Notepad? What about for a graphic file? Why?

What is the difference between text mode and binary mode in a transfer?
When should you use text mode and when should you use binary mode?
Why can FTP be embedded in other software? Give an example.
What is the main difference between UNIX ftp and a Windows/Mac based ftp program?
In WinSCP/Fugu, which side contains the files on your computer and which side contains the files on the UNIX machine?
In a UNIX ftp session, if I want to get all the files with first letter v and file extension .jpg, what command should I use?

HTML

Should you ever assume that you typed in all your coding correctly the first time around?
When creating a web page in a text editor, what is the first tag you must put in order for anything to appear on the browser?
Which tag separates lines?
If you have a very long page and you want a link at the top of the page which then jumps to the bottom of the page, what are the two things you need?
How would you create a link, in HTML, that would open a new message to a specified email address in the default email server?
When making a picture link map and you use the code:
`<AREA SHAPE="DEFAULT" HREF="...">`
What part of the picture will contain the link?
How can you make an image contain several links to separate websites?
Is it possible to split up an image so that different parts can be clicked on?
What is a "Client Side Image Map"?
In this client side image map code, what is the radius of the circle?
`<AREA SHAPE="CIRCLE" COORDS="50,45,42" HREF="...">`
Is it necessary to specify the last point of a polygon as the starting point?
Write the code for a client side image map for a rectangle with corner coordinates located at `<180,150>...<350,400>` with a link to `http://www.facebook.com/`
How do you add an image into a webpage?
What function does the `TARGET="_blank"` part of the code below serve?
`<A HREF="http://www.cnn.com" TARGET="_blank">cnn.com</A>`
How do you modify a link to cause the target to open in a new window?
What is the difference between the `<BR>` tag and the `<P>...</P>` tag pair?
What values are used when specifying circles in an image map?
What shapes can you make in an image map?
How many sets of coordinates are needed to put a rectangle into an image map, and what position are the coordinates in relation to the object itself?
What coordinates do we need to know if we want to make a link in the image as a rectangle? A circle? A polygon?
When you have numerous overlapping shapes linking to other web pages in your client side image map what happens when you click on the overlap region?
How do you create a link that opens the user's default mail program with an email address already filled into the "to" field?

How can we create an internal text link?

What does the tag `<TABLE BORDER>` do?

How do you make the table border line thicker?

What elements are used to create rows and cells in a table?

What is the tag for a row when making a table in html code?

What are deprecated HTML tags?

What tags are considered deprecated? Why?

How do you change the text color in HTML?

How do you change the background color in HTML?

What country code is indicated by: `http://www.xyz.ru`

What does it mean when a URL in `.jp`?

How many colors are possible using the hex triplet color system?

What do you use an anchor tag for?

How to you create a link to email a specific person?

What are the two types of lists we have learned in Web and what is the HTML code for them?

What is the difference between an ordered list and an unordered list?

What are the appropriate tags for an unordered list?

How do you change the symbol on an unordered list from bullets into a disc?

What does `<UL TYPE="square">` do?

What we can do to form an ordered list with Arabic numbers?

In HTML specify a border with a width of 2 pixels.

Write the HTML tags to turn the color of a section of text blue.

In HTML, how do you write comments in your code without it being seen in the webpage?

What do the tags `<!-- ... -->` stand for?

What tag is used to close an HTML document?

In order to make things easier in tables, which HTML tag automatically bolds AND centers the text within a cell?

What is the difference between the tags `<UL>` and `<OL>`?

What are frames and why would we use frames?

Do all modern web browsers support frames?

What is used to define a group of frames?

What are the disadvantages of using frames?

What is the purpose of the `<NOFRAMES> ... </NOFRAMES>` tag?

What is the purpose of the ACTION attribute in a FORM?

What does `<SELECT NAME="List1">` do?

What does `<INPUT TYPE="checkbox" ...>` do?

How should this code be altered to make the checkbox checked by default?

```
<INPUT TYPE="checkbox" NAME="Checkbox1">My Checkbox 1
```

Please write the code to make a list similar to the following:

1. Monday
 - a. Class
 - b. Work
 - c. Class
2. Tuesday
 - a. Class
 - b. Work

CSS

What does `CSS` stand for?

Should you ever assume that you typed in all your coding correctly the first time around?

What is the code that must be typed in every single HTML document in order to use CSS styles?

What is the purpose of using style sheets in HTML?

Give two examples of issues that are solved by using cascading style sheets.

In CSS, if a width is not specified we assume it is measured in what units?

What is one issue with not using a style sheet?

What are the different options on how a background image gets repeated?

What is the code to link an external text file style sheet to the HTML document?

How do you create a font style in CSS?

If you have a style sheet linked to your web page, but want to override only the H2 heading colors to yellow for example, what are some of your options to do so?

How would you insert a horizontal line with a width of 50% into an HTML document?

True or False: CSS declarations should be capitalized?

Where do the tags `<STYLE> ... </STYLE>` appear?

What is the "Cascade"?

JAVASCRIPT

Do all modern web browsers support JavaScript?

Should you ever assume that you typed in all your coding correctly the first time around?

Are Java and JavaScript the same thing?

What's the difference between the JavaScript and Java programming languages?

What is the difference between "Top-Down" and "Bottom-Up" program design?

What is the advantage of the "Top Down" approach to programming over "Bottom Up"?

What is an advantage to programming vs. manual input of HTML codes?

What is a disadvantage to programming vs. manual input of HTML codes?

What are the three types of flowchart styles presented in class?

What is a variable?

Some languages support static data types, other languages support dynamic typing. What is the difference? Which does JavaScript use?

What is the code to ignore JavaScript?

How do you write a line in JavaScript to insert a `<BR>` tag into the current HTML document?

What symbol do you put at the end of every statement in JavaScript?

What does adding `var` in front of a variable do?

Why does `var` appear in front of variables in a JavaScript statement?

What does keeping variables local to a function prevent?

What is the JavaScript shortcut for `i = i + 1; ?`

What does the `i++ ;` shortcut mean in JavaScript?

Are `i++` and `i=i+1` equivalent?

How can the code `f=f*i;` be rewritten? In other words, what is a shortcut way of writing it?

What does `parseFloat` do?

What does `String` do?

In regard to JavaScript, a reserved piece of memory that has a name, a data type and a value is referred to as a _____.

What is the difference between selection and looping?

What is looping? Give an example.

What is an infinite loop?

Numbers in JavaScript are not integers, what are they exactly?

Does JavaScript have infinite precision? If not, then what are the limits?

What is the maximum normal double precision floating point number value?

How many digits of precision do double precision floating point Numbers have in JavaScript?

What is a syntax error in JavaScript?

Describe a run time error.

A forgotten comma or improper spacing is an example of what kind of error?

What other types of errors are possible in JavaScript?

What are three types of mistakes one can make when writing code in JavaScript?

In JavaScript, what is the function of a semicolon?

Where can the tags `<SCRIPT> ... </SCRIPT>` appear?

What is the main purpose of functions?

What is the point of including `<!-- and //-->` in HTML documents that include JavaScript?

What does `<SCRIPT LANGUAGE="JavaScript">` do?

List two ways that JavaScript can be used in Web pages?

When writing Java Script, if I were to write a piece of code designed as a loop/iteration, as long as the condition was false every time, would it continue to loop over and over forever?

When writing Java Script, if I were to write a piece of code designed as a loop/iteration, as long as the condition was true every time, would it continue to loop over and over forever?

Create a JavaScript function that returns its single numeric argument divided by 3.

Write a loop statement that prints x and decrements it while it is greater than or equal to 1.

Write a simple JavaScript loop that will produce the outcome: 0 1 2 3 4 5

What's wrong with this line of code? `document.writeln(i, Math.sqrt(i), <BR>)`

Does JavaScript read the following lines differently?

```
document.writeln("Hello");  
document.writeln('Hello');
```

Define "syntactic sugaring".