> **NOTE: It is my policy to give a failing grade in the course to any student who either gives or receives aid on any exam or quiz.**

INSTRUCTIONS: Circle the letter of the best answer for each multiple choice question. For short answer questions, write the question number and answer on the back of the exam sheets. Short answer questions count more than multiple choice questions.

1. *Apache* is the name of:
    A. A web site
    B. A web server
    C. A web client
    D. A web browser
    E. A web connection

2. *Firefox* is the name of:
    A. A URL
    B. A web server
    C. A web client
    D. A web stylesheet
    E. A scripting language

3. *Javascript* is the name of:
    A. A web browser
    B. A web connection
    C. A client-side scripting language
    D. A rendering engine
    E. A server side scripting language

4. *Firebug* is the name of:

    A. A client-side scripting language
    B. A server-side scripting language
    C. A stylesheet
    D. A Firefox extension
    E. A web server

5. Which XHTML code will cause the following sentence to display correctly;
            Usually, 7 < 3 is false.
    A. Usually, 7 < 3 is false.<p>
    B. <p Usually, 7 < 3 is false />
    C. <p lt="<">Usually, 7 lt 3 is false>
    D. <p>Usually, 7 < 3 is false.</p>
    E. <p>Usually, 7 < 3 is false.</p>

6. What is wrong with the following piece of XHTML code?
            <p>Truly, seven is less than three.</p>
    A. Nothing.
    B. The tag names should be capitalized.
    C. There is no tag named <em>.
    D. Either the second and third tags are in the wrong order, or the fourth and fifth tags are.
    E. There has to be a space immediately before each of the >'s.

7. Which of the following shows the structure and meaning of an *attribute*?
    A. name=value
    B. value=name
    C. name="value"
    D. "name"=value
    E. "name"="value"

8. Why is it important to include a DOCTYPE at the beginning of all web pages?
   A. Search engines will ignore web pages with no DOCTYPE.
   B. DOCTYPE prevents spam filters from blocking web pages.
   C. DOCTYPE tells browsers what rules to follow when interpreting web pages.
   D. Browsers will not display web pages that don't have a DOCTYPE.
   E. Servers will not deliver web pages that don't have a DOCTYPE.

9. In the URL, http://www.webu.edu/~ejb, what does "~ejb" refer to?
   A. The document root
   B. The document tree
   C. The home directory of account ejb.
   D. A link to a computer named ejb.
   E. A client-side script.

10. A web server is running on a Windows computer named ginkgo.cs.qc.edu with the Document Root configured as C:\htdocs. What would be the URL for the web page at C:\Program Files\index.xhtml on that computer?
   A. http://ginkgo.cs.qc.edu/Program Files/index.xhtml
   B. http://gingkgo.cs.qc.edu/Program Files/index
   C. http://www.ginkgo.cs.qc.edu/Program Files/Apache
   D. http://ginkgo.cs.qc.edu/~index.xhtml
   E. None of the above.

11. Each web page a user views requires the browser to send exactly one request to the server, but the server might return multiple files as a result of the request.
   A. True
   B. False

12. What can the <link> tag used for?
   A. To attach Javascript code to a web page.
   B. To attach a stylesheet to a web page.
   C. To add a background picture to a heading.
   D. To underline words in a heading.
   E. To check the spelling in a web page.

13. What does an *alert()* statement do?
   A. It changes the color of the text on a web page.
   B. It causes the server to invoke the PHP processing module.
   C. It causes the browser to invoke the PHP processing module.
   D. It notifies the server that the user is trying to access a phishing site.
   E. It displays a message with an "OK" button in a window.

14. What is a Javascript *function*?
   A. A segment of code that can be executed when an event occurs or when invoked from another function.
   B. A value that cannot be changed.
   C. A value that must be changed before using it.
   D. A way to block PHP from accessing the database without inverting the query following the rendering of the stylesheet's DOCTYPE DOM root node variable's attribute value.
   E. The way to cause PHP to access the database after inverting the query before the encoding of the stylesheet's DOCTYPE DOM root node variable's attribute value.

15. Write a CSS rule that will cause an image file named gradient.png to be used as the background of all H1 elements in the document. The image should appear in the heading just once no matter how large the headings are. (*Write answer below or on the back of any sheet, but be sure the question number is right next to your answer if on the back.*)

16.   Write the following events in the correct temporal sequence: i.) Browser requests stylesheets, images, and script files, ii.) Server runs server-side scripts, iii.) User types URL of the web page, iv.) Server retrieves web page from disk file, v.) Browser renders web page, vi.) Browser runs Javascript code that is not inside a function definition, vii.) Browser sends request for the web page to the server. You can just list the numbers in the correct order, or you can write the items out.

17.   Which of the following is a shade of gray?
    A. #888
    B. #343434
    C. rgb(75%,75%,75%)
    D. rgb(200,200,200)
    E. All the above.
    F. All the above except B.

18.   Why is it important to specify both the color and background-color in a CSS rule?
    A. It is part of the DOM Tree.
    B. To make sure there is enough contrast between the two.
    C. The browser ignores the rule if you don't.
    D. The server displays an error message if you don't.
    E. The browser ignores the stylesheet if you don't

19.   Which of the following most closely shows the required structure of an XHTML document?
    A. <header>…</header><body>…</body>
    B. <xhtml><content>…</content></xhtml>
    C. <html><head>…</head><body>…</body></html>
    D. <head><xhtml><body></head></xhtml></body>
    E. <xhtml><head>…<body>…</xhtml>…</head></body>

20.   What is the difference between viewing a web page on a *testing server* compared to Dreamweaver's *design view*?
    A. A testing server will process server-side scripts, but design view does not.
    B. A testing server will let you look at the source code for the page, but Dreamweaver does not.
    C. Design view is used only by graphics artists, testing servers are used only by programmers.
    D. Design view uses Internet Explorer, but testing servers use Firefox.
    E. Testing servers won't render the page, but Dreamweaver will.

21.   Which of the following image file formats uses *lossy compression* and is most suitable for photographs?
    A. PNG
    B. SVG
    C. GIF
    D. JPEG
    E. ZIP

22.   If you tell Inkscape to fill a shape with the RGBA color #FF000033, what would describe this color best?
    A. This is an illegal color because there can be only six hexadecimal digits.
    B. The color is a mixture of green and blue.
    C. The color has mostly cyan, no magenta, no yellow, and some black.
    D. The color is red, and is partially transparent.
    E. This is color number 33 in a list of 255 colors.

23.   A coder types two spaces after every period in a paragraph. How will a browser render the paragraph?
   A.   There will be two spaces after every period.
   B.   There will be one space after every period unless the period happens to be rendered at the end of a line.
   C.   There will be one space after every period unless the user double-clicks on the paragraph.
   D.   The browser will put a tab character after every period.
   E.   The browser will convert the spaces into   .

24.   What is a .dwt file?
   A.   An Inkscape drawing file.
   B.   A Dreamweaver template file.
   C.   A Javascript code file.
   D.   A stylesheet file.
   E.   A deadweight file.

25.   What are ASCII, ISO-Latin-1, and UTF-8, how are they different from each other, and how are they related to each other? (*Answer all three parts!*)

26.   Write two complete CSS rules. The first one is to give a background color to all paragraphs, and the second one is to give a different background color to all paragraphs with a class of "important".