Question #1 (20 marks):  
For the following file type extensions provide a brief description of its purpose and what it is used for:

1. .jpg/jpeg
2. .gif
3. .png
4. .psd
5. .pdf
6. .mov
7. .txt
8. .htm/html
9. .exe
10. .java

**Answers:**

1.jpg/jpeg stands for, Joint Photographic Experts Group. The purpose of jpeg is to, compress digital images, with little loss to quality, and this is done due to jpeg supporting over 16777216 colours.

2. gif stands for, Graphics Interchange Form. Gif is used for: images, graphics, animations, lossless compression of images. Gifs and jpeg serve the same purpose. However, gifs have no loss in quality when the images, graphics, or animations are compressed.

3. png stands for, Portable Network Graphics. PNG is used for: lossless data compression, store web graphics, digital photographs / pictures, and images with transparent backgrounds.

4. psd stands for, Prevention Of Significant Deterioration. The purpose of PSD is to allow the user to work with individual layers of an image even after the file that contains the image has been saved. PSD is also used as the default format that Adobe Photoshop uses for saving data.

5. pdf stands for, Portable Document Format. PDF was invented by Adobe, and it serves the purpose of exchanging files digitally.

6. mov stands for, Metal Oxide Varistor. A mov file is a multimedia container file format developed by Apple and it is compatible with both Windows and Macintosh computers.

7. txt stand for, Text File. The purpose of a txt file is for writing plain text that contains letters, numbers, or symbols, and this file type contains very little formatting (italics font, bold font).

8. htm/html stand for, Hypertext Markup Languages. HTML files consist of tags surrounded by angle brackets. The tags in HTML can be used to define headings, links, lists, quotes, and various other things. The purpose of htm/html files is, to create web pages.

9. exe stands for, Executable file. An executable file is used for, containing other programs that can be run on a computer.

10. .java is a file extension for a source code file format that is programmed in the Java Programming Language. A .java file is used for, containing source code in a java bytecode that can be executed on the JVM (Java Virtual Machine).

Question #2 (6 marks):  
Although “dog.jpg” and “dog.JPG” and “Dog.jpg” and “DOG.JPG” all appear to be the same file, they are not considered the same when programming web pages on the Internet.  Why is that?  Consider the HTML code <img src=”dog.jpg”  /> when answering this question. Please consider the different operating systems involved: Microsoft Windows, Apple Macintosh, and Linux (the electron server, Web servers in general)

**Answer:**

The reason as to why, ‘dog.jpg’, ‘dog.JPG’, ‘Dog.jpg’, and ‘DOG.JPG’ all appear to be the same file, but are not considered the same when programming web pages on the internet has a lot to do with the operating system that the user has . The reason for that is because, in the Windows environment: ‘dog.jpg’, ‘dog.JPG’, ‘Dog.jpg’, and ‘DOG.jpg’ are all considered the same file. Whereas, in the MAC OS and Linux environment, those files would be considered completely different. Not to mention, on most web servers the link must be <a href=”Dog.jpg”> (or you must manually change the name of the file to ‘Dog.jpg’). Moreover, most text editors and file transfer programs will change the name of the files without telling the developer.

Question #3 (4 marks):  
How do you reveal the actual file name in either the Windows OR the MAC environment? The procedure to reveal the actual file name in a Windows environment comared to a MAC environment is different.

**Answer:**

In a MAC environment, go to the Desktop and pull down the Finder menu. After pulling down the Finder menu, choose either “Preference” or “Finder Preferences” (different versions of the MAC operating system will have different names. So, it can be labelled either ‘Preferences’ or ‘Finder Preferences’ on your operating system). After ‘Preferences’ is chosen, click on the “Advanced” tab, and then check the box next to “Show all filename extensions”.

Question #4 (10 marks):  
When using today’s digital cameras file sizes are often saved in a format that is well over 1 Megabyte.  This may be great for high definition photo reproductions but is a disaster for uploading to the web.  Images on your web site should be no larger than 500 Kilobytes.  Describe how you would reduce the file size of an image.  Please choose from the following software programs: GIMP, Adobe Photoshop (if you have it), FormatFactory, or IrFanView.  You DO NOT have to purchase a program for this assignment.  Most of these are free.

**Answer:**

In order to reduce the file size of an image, I would use image compression (reducing the number of bytes that an image is, without reducing the quality of the image to an undesirable level). In order to reduce the size in Adobe Photoshop, I would:

1. Open the image in Adobe Photoshop.

2. Click on ‘Image’ after opening the image in Adobe Photoshop.

3. Click on ‘Image Size’ when the options menu opens up, after I clicked on the Image tab.

4. After click on Image Size there is an option menu that opens up, and I would make the necessary adjustments (reducing height, reducing weight, or changing dimensions), until I reach the Image Size that I wanted (the size of the image in bytes is displayed as, “Image Size” at the top of the Image Size adjusting window).