

1.

- (a) The HTML below is the content of a web page hosted on the web server `www.aserver.net`

Imagine that you are viewing this page from one of the computers in the 2A21 lab. Describe the sequence of communications that take place between your computer and the web server, explaining the roles of the HTTP and TCP/IP protocols in handling this communication.

```
<!DOCTYPE html>
<html>
<head>
  <title> A Very Interesting Web Page</title>
</head>
<body>
  <p> This paragraph is really very interesting! </p>
  
</body>
</html>
```

- (b) Cascading Style Sheets (CSS) allow a website designer to separate the content of a web page from its appearance. Explain what this means. What are the benefits of having this separation? Can you think of any drawbacks?

2. Here is a (perhaps surprising) method declaration: (This is called a “recursive” method)

```
private void display(int n)
{
    if (n>0)
    {
        System.out.println(n);
        display(n-1);
        System.out.println(n);
    }
    else
        System.out.println(n);
}
```

- (a) Hand trace the execution of the following method call: `display(2);`
What is displayed on the program’s output? **Hint:** Remember that when a method is called, the JVM allocates fresh memory to store the values of the formal parameters, and any local variables (if there are any).
- (b) What would happen with this method call: `display(-1);` ?
- (c) Would your answers to parts (a) and (b) change if the condition in the `if` statement were altered to `n!=0` ? If so, then how would they change?
- (d) What modifications would be needed if we wanted `display` **to count up to 0 if it received a negative parameter** (still counting down, as it does, for a positive parameter)?