CS 6311 – Programming Languages I – Fall 2006
Quiz #1 (20 pts)
Monday, 8/21/6

NAME:

1. True or False. In C#, declaring a user-defined variable automatically calls the constructor. (2 pts)

     False. It is not until it is instantiated/allocated that the constructor is called.

2. Describe the purpose of a programming language. (4 pts)

There is a two-fold purpose. The first purpose is to communicate between the programmer and the machine that runs the program (describing computation for use by the computer), the second is two communicate between two programmers (describing computation and algorithms for human use).

3. PL/I was considered to be the "language to end all languages", but was a huge failure on meeting this expectation. Name another language that had a similar hope and suffered a similar fate. (2 pts)

     Ada

4. Name a language that was developed to aid in teaching programming. (2 pts)

     Pascal/Basic/Smalltalk/Alice are examples.

5. Besides Smalltalk being considered the first pure object-oriented language, what other contribution did it make to developing programs? (2 pts)

     The idea of developing programs using an interactive development environment.

6. What factors led to the explosion of the Internet and web programming in the 1990's? (5 pts)

The main factors were the availability of home PCs, the use of the Windows operating system on the PCs which was a GUI-based operating system, a web browser (Mosaic being the first) capable of running on a PC, and dial-up Internet connections allowing access to the Internet to the home computer user.

(If you said anything about the availability of home PCs you received the majority of the points.)

7. In the paper, *The Semicolon Wars* by Brian Hayes, he mentions various programming language disputes such as Big vs. Little Endian, 0-based vs. 1-based counting, etc.

   a. What dispute is Brian alluding to in the title of his paper? (2 pts)

   The difference between the use of a semicolon as a statement terminator vs. a statement separator causing some languages to have different rules regarding the placement of the semicolon.

   b. Name one of the two languages that was a source of this dispute? (1 pt)

   The two languages were C and Pascal.