Meteorology 227 - Fall 2015 – Exam #1 Review

General

- Definition of programming
- Common high level languages
- Why are we using FORTRAN and Python
- Inventor of FORTRAN and meaning of name
- Seven steps of program development
- Defining diagram, flowchart, desk check
- Basic Linux understanding and commands for files, directories, permissions, etc.

Basic FORTRAN

- Data types and details of each data type
- Valid identifiers
- Variable declaration and type statements
- Use of IMPLICIT NONE
- Parameters
- Basic operators, functions, and priorities
- Assignment statements
- Basic input and output
- Five parts of a program

Selective Execution

- Logical expression operators and evaluation of logical expressions
- Compound logical expressions and evaluation of compound logical expressions
- Block IF constructs
- Logical IF statements
- IF-ELSE constructs and IF-ELSE-IF constructs
- CASE constructs

Repetitive Execution

- Counter controlled Do-Loops
- Do-Loops controlled by a logical expression
- Pre-test, test in the middle, post-test loops
- Be able to program loops and determine output from examples.

Good Luck!