Programming Fundamentals – Fall 2014

**Problem Pool**

Draw Flow Charts for the following programs. you have to use proper statements for output and input.

SEQUENCE Program Statements (each have 5 marks)

* Draw flow chart of a program that inputs a real number from user and display its half.
* Draw flow chart of a program that inputs two real numbers from user and swap them (hint: using three value)
* Draw flow chart of a program calculating pay of an employee, given the hours worked and rate per hour.
* Draw flow chart of a program which will calculate area of circle by taking radius as input.

CONDTION Program Statements (each have 10 marks)

* Draw flow chart of a program that inputs two real numbers and an arithmetic operator and displays the required result. (For example: input: 1 + 2 output: 3)
* Draw flow chart of a program that inputs three real numbers and display them in ascending order.
* Draw flow chart of a program that inputs a temperature in Celsius and convert it in Fahrenheit. [Hint: C = F -32(5/9)]

BONUS Tasks: (each have 15 marks)

* Takes a shape as an input and displays the number of sides it has. [ input: rectangle; output: 4] input shapes: (Triangle , Square , Rectangle , parallelogram , pentagone , hexagone , circle)
* Input marks from a user, if marks are greater than or equal to 85 display “Excellent”, if the marks are between 80 and 84 (both inclusive) display “Very Good”, if the marks are between 75 and 79 (both inclusive) display “Good”, if the marks are between 70 and 74 (both inclusive) display “Fair”, if the marks are between 65 and 69 (both inclusive) display “Satisfactory”, otherwise display “You may not get the degree with such marks”.
* Write statements of a program that inputs number of seconds and convert it into number of weeks, days, hours, minutes, seconds.