**CS5900 Programming in C**

Summer 2015

**HW#2(120 pts)**

*Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**[1]** Develop a **C program** that accepts a number **n** and then displays the sum of the squares of the numbers from 1 to **n**. For example, if the input number is 3, then the output should be:

**[2]** Develop a **C program** named **Hawaiian Tourism Board Average Temperature** where the user can enter up to 10 days of temperature and the program computes and displays the average temperature in those 10 days

[3] Programming **Project#2** from your textbook on *page 231*

*--------------------------------------------- or -------------------------------------*

Programming **Project#5** from your textbbok on *page 232*

[4] Develop a **C program** that lets the user to enter many values and displays the number as **EVEN** number *or* **ODD** number as the value is entered and display total EVEN numbers and total ODD numbers.

[5] Assume that you offer programming seminars to companies. Your *price per person* depends on the number of people the company registers. For example, if the company registers 6 people, then the total amount owed is $480, which is calculated by multiplying the number of registrants by $80.

**Number of Registrants Charge criteria**

1 – 4 $100 per person

5 – 10 $80 per person

11 or more $65 per person

**[6]** A bicycle salesperson is offered a choice of wage plans: (1) a straight salary of $300 per week; (2) $3.50 per hour for 40 hours plus a 10% commission on sales; (3) a straight 15% commission on sales with no other salary. Develop a **C program** that takes as input the salesperson’s expected weekly sales and outputs the wages paid under each plan as well as announcing the *best-paying plan*.

[7] Develop a program to implement the **Flight classification** according to the criteria:

**Flight Code Classification**

F *or* A First class

B *or* Q Business class

Y *or* S *or* M Full Fare Economy

K *or* C Preferred Economy

U, J, P *or* G Economy class

Implement using **switch** statements.

**[8]** Develop a program that computes the cost of postage on a first class letter according in the following rate schedule: 44 cents for the first ounce or fraction of an ounce. 15 cents for each additional half ounce, plus $5.00 service charge if the customer desires a special delivery.

Read, review and surf online to reinforce decision implementation and repetition in C

**Good Luck!!**

**Due: May 28th, 2015**