Programming Language (630203) <u>Assignment 1:</u>

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Assignment 1:

Weighting: 5 % of the Module total Date set: 15 April 2011 Date Due in: 10 June 2011

Submission Notes:

Completed work must be handed into my office. Sessions for oral discussion will be held in my office. After the deadline a nil mark will be awarded. The only exceptions are where you have permission to hand in later or have been ill and can produce appropriate evidence. In both cases a form (available from the dean secretary must be completed and submitted to the module teacher.

Objectives:

To test the student understanding of writing C++ programs Using Loops, functions, and Arrays.

Task:

Write C++ programs to accomplish the following:

- 1. Write a program that will ask the user a question with four possible answers. The question should be asked 20 times. After all the input is gathered, the program should output the number of times each answer was selected.
- 2. Write a program that allows the user to select the user to select either a for, while, or do loop to produce output. Additionally, the user enters the highest number to output as well as how many numbers should be skipped each time. For example, if the user asks the program to count 10 in steps of 3, then the output should be 0,3,6,and 9. Since 12 is larger, it should be skipped. Use the switch function to decide on the correct loop to use.
- 3. Write a program that accepts a number and outputs whether the number is even or odd. Instead of using complicated mathematical techniques, the program should compute the results by continuously subtracting 2 until you are left with 0 or 1. The program should output "EVEN" if the final value is 0, and "ODD" if the final Value is 1.
- 4. Write a program that accepts an array of characters and a character to search for. The program should return an integer indicating the number of times the value appears in the array passed.
- 5. Write a function that inputs a series of integers and passes them one at a time to function even which uses the modulus operator to determine if an integer is even. The function should take an integer argument and return true if the integer is even and false otherwise.

Assessment Criteria:

70%: Completing the solution. 30%: Demonstration.

The cover sheet of the handed work must contain the following items:

The Date due in: The name of the module: The name of the module teacher: Your name and number: Your section: