Quiz 1, INFSCI 0020 Program Design and Software Tools, Jan 13, 2004

Names:

Email:

1. Fill in the blank spaces (2):
   
   a. In C++ system, a(n) **preprocessor** program executes before the compiler’s translation phase begins.

   b. The **loader** transfers the executable image of a C++ program from disk to memory.

2. Write the outputs of the following code (8)

   (a) 
   ```
   int i;
   for ( i= 2; i < 20; i = i + i ){
     printf("%d, ", i);
     i = i + 1;
   }
   ```
   Answer: Output: 2, 6, 14

   (b) 
   ```
   int sum = 0; int i = 1, j = 1;
   while (i = 5){
     sum = sum + i;
     if (sum == 20) break;
     j++;
   }
   printf( "%d, %d", i, j);
   ```
   Answer: Output: 5, 4

   (c) 
   ```
   x = 0; y = 5;
   do {
     switch (x) {
       case "2":
       case "3":
         y += 3 * x;
         break;
       default:
         y += x;
     }
   } while (++x < 5);
   ```
   Answer: Output: x = 5, y = 25

   (d) Consider the condition shown below. For what values of x and y will the values of z be as follows (state your answer in the back of the paper):

   i. z = 10 | Answer: for x = 5 and any value of y
   ii. z = 20 | Answer: for x = 5 and any value of y

   **Condition:** ((x == 5 || 7 < y && (100 - 2*50)) ? z = 10: z = 20)