**Fall 2020 CS 3723 Programming Languages Assignment #3: SCOPE**

Name \_\_\_\_\_James Hernandez\_\_\_\_\_\_\_\_\_\_\_\_ Section \_\_\_001\_\_\_\_\_ abc123 \_\_jwg455\_\_

Run the C code shown below and fill in the blanks (1 point each, 12 pts):

funcA: x y z = 310 220 130

funcB: x y z = 310 210 420

funcC: x y z = 150 220 130

main: x y z = 310 220 130

Now, pretend C has dynamic scope. What would the results be? Fill in the blanks (4 pts each, 48 pts):

funcA: x y z = 310 220 130

funcB: x y z = 310 230 450

funcC: x y z = 150 230 450

main: x y z = 150 230 450

#include <stdio.h>

int x = 300;

int y = 200;

int z = 100;

static void funcA(void) {

x += 10;

y += 20;

z += 30;

printf("funcA: x y z = %d %d %d\n", x, y, z);

}

static void funcB(int y) {

int z = 400;

y += 10;

z += 20;

funcA();

printf("funcB: x y z = %d %d %d\n", x, y, z);

}

static void funcC(int x) {

funcB(200);

x += 50;

printf("funcC: x y z = %d %d %d\n", x, y, z);

}

int main(int argc, char \*argv[]) {

funcC(100);

printf("main: x y z = %d %d %d\n", x, y, z);

return 0;

}