CS2050 – C Programming Quiz 1 Fall 2016

PUT YOUR ANSWERS ON THE ANSWER SHEET ONLY . Use the following code to answer the next few questions. IGNORE COMPILE ERRORS!

Using the code below apply the following assumptions: The address of num1 is 2000, of num2 is 3000, of num3 is 4000 of pr1 is 5000 of pr2 is 6000 of pr3 is 7000.

a. #include <stdio.h>

b. int main (void)

c. {

d. int num1=123, num2=234, num3=345;

e. int \*pr1, \*pr2, \*\*pr3;

f. pr2 = &num1;

g. pr1 = &num3;

h. pr3 = &pr2;

j. printf("\nValue here is: %d", \*pr2);

k. printf("\nValue here is: %p", pr3);

m. printf("\nValue here is: %p", \*pr3);

n. printf("\nValue here is: %d", \*\*pr3);

o. printf("\nValue here is: %p", &pr1);

p. \*pr3 = &num2;

q. printf("\nValue here is: %d", \*pr2);

r. printf("\nValue here is: %p", pr3);

s. return 0;

t. }

1. List the output for the printf() statements in this program in the order they appear.

Using the code below apply the following assumptions: size of an int is 2 bytes, size of a char is 1 byte, size of a float is 4 bytes. IGNORE COMPILE ERRORS.

a. #include <stdio.h>

b. #include <stdlib.h>

c. int main( void ) {

d. int nelem = 8, i, index;

e. char \*arrPtr, \*itemPtr;

f. arrPtr = malloc(nelem \* sizeof(char));

g. printf("arrPtr = %p, size of char = %lu\n\n", arrPtr,

h. sizeof(char));

g. for ( i = 0; i < nelem; i++) {

h. itemPtr = arrPtr + i;

j printf("Storing char at memory location = %p (index = %i)\n", itemPtr, i);

k. \*itemPtr = 'x';

m. }

n. printf(“%c”, \*itemPtr);

n. return 0;

p. }

2. How many bytes of space will be set aside by the malloc() on line f?

3. What will the printf() on line “n” display?

4. T / F There is a memory leak in this program.

CS2050 – C Programming Quiz 1 - ANSWERS NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Fall 2016 LAB (A-F) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
  
  
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. T / F