Name: KEY Id#

ICS 103, Term 083

Computer Programming in C

Quiz# 3

 Date: Tuesday, August 18, 2009

**Find the output of the following programs:**

|  |  |
| --- | --- |
| **Program** | **Output** |
| 1. **6 points**

#include <stdio.h> void test1(int x, char htable[]);int main(void){ int x=125;  char htable[]={'0','1','2','3', '4','5','6','7','8','9','A','B', 'C','D','E','F'};   test1(x, htable); printf("\n"); return 0;} void test1(int x, char htable[]){   if (!x) return; else test1(x/16, htable);  printf("%c", htable[x%16]); }   |  **7D****First call since the value of x=125 is not 0, the function will be called again with argument 125/16=7.** **Since 7 is not 0, the function will be called with argument 7/16=0.** **Now since x is 0 it will return without doing anything. This will be the return of the 2nd call so it will print htable[7%16=7]=’7’.****Then, it returns to the first call which will print htable [125%16=13]=’D’.** |
| 1. **6 points**

 #include <stdio.h> #define SIZE 10void test2 (int x[], int n){ int i; for (i=0; i<n; i++) x[i]=i\*i;}void test3 (int x[], int n){ int i,j; for (i=0; i<n/2; i++){ j=x[i];  x[i]=x[n-i-1]; x[n-i-1]=j; }}void test4 (int x[], int n){ int i; for (i=0; i<n; i++) printf("%d ",x[i]); printf("\n");}int main(void){ int x[SIZE];  test2(x, SIZE); test3(x, SIZE); test4(x, SIZE);  return 0;} | **81 64 49 36 25 16 9 4 1 0****Call of function test2 will initialize the array x to:****0 1 4 9 16 25 36 49 64 81****Call of function test3 will reverse the array x to:****81 64 49 36 25 16 9 4 1 0****Call of function test4 will print the elements of array x separated by spaces.** |