Name: KEY Id#

ICS 103, Term 093

Computer Programming in C

Quiz# 3

Date: Tuesday, August 3, 2010

**Q1.** Determine the output of the following program:

**#include <stdio.h>**

**30**

**10**

**3**

**1**

**0**

**0**

**1**

**3**

**10**

**30**

**void myfun(int x);**

**int main() {**

**int x;**

**myfun(30);**

**printf("\n");**

**return 0;**

**}**

**void myfun(int x){**

**printf("%d\n", x);**

**if (x>0)**

**myfun(x/3);**

**printf("%d\n", x);**

**}**

**Q2.** Determine the output of the following program:

**#include <stdio.h>**

**120 10**

**void myfun(int \*x, int y);**

**int main() {**

**int x=30, y=10;**

**myfun(&x, y);**

**printf("%d %d\n", x, y);**

**return 0;**

**}**

**void myfun(int \*x, int y){**

**y = 2 \* \*x;**

**\*x = 2 \* y;**

**}**

# **Q3.** Assume that the IDs of students and their scores are stored in the file scores.txt. Write a program to read the IDs and scores from a file and print the **average**, the **highest** and **lowest** in an output file, results.txt. Your program should handle input file not found error.

**#include <stdio.h>**

**#include <stdlib.h>**

**int main (void) {**

**FILE \*infile, \*outfile;**

**double ID, MAXID, MINID, score, maxscore=0, minscore=100, sum=0, average;**

**int count=0, status;**

**infile = fopen("scores.txt", "r");**

**if (infile==NULL) {**

**printf("Input file could not be opened\n");**

**system("pause");**

**exit(1);**

**}**

**outfile = fopen("results.txt", "w");**

**status = fscanf(infile, "%lf%lf", &ID, &score);**

**while (status != EOF)**

**{**

**if (score>maxscore) {**

**maxscore=score; MAXID = ID;**

**} else if (score<minscore) {**

**minscore=score; MINID = ID;**

**}**

**sum += score;**

**count++;**

**status = fscanf(infile, "%lf%lf", &ID, &score);**

**}**

**average = sum / count;**

**fprintf(outfile,"The Average is %.2f\n", average);**

**fprintf(outfile,"The highest is %.0f with a score of %.2f \n", MAXID, maxscore);**

**fprintf(outfile,"The lowest is %.0f with a score of %.2f \n", MINID, minscore);**

**fclose(infile);**

**fclose(outfile);**

**system("pause");**

**return 0;**

**}**