ICS 102 Sample Quiz03 Key - Term 172

1. [6 points] What is the output of the following program fragment?

int k = 10;

do{

if(k % 2 == 0)

System.out.printf("%d ", k + 1); **11 9 7 5 3 0**

else

System.out.printf("%d ", k \* 2);

k = k - 2;

}while(k >= 1);

System.out.printf("%d", k);

1. [6 points] What is the output of the following program fragment?

int i,k;

for(i = 8; i > 4; i--){

System.out.printf("%d ", i);

for(k = 1; k < i; k = k + 2){

System.out.printf("%d ", k);

}

System.out.println();

}

**8 1 3 5 7**

**7 1 3 5**

**6 1 3 5**

**5 1 3**

1. [3 points] Convert the following **while-loop** into an equivalent **for-loop**:

int m = 20;

while(m >= 5){

System.out.printf("%d ", m);

m = m - 2;

}

**for(int m = 20; m >= 5; m = m -2){**

**System.out.printf("%d ", m);**

**}**

1. [15 points] A text-file **input.txt** contains exam grades of some students. Write a **complete** Java program that reads one grade at a time from the file until the end of file is reached. The program computes and writes on an output file **output.txt** the sum of all grades in the interval [60.0, 95.0] inclusive.

**import java.util.\*;**

**import java.io.\*;**

**public class Q04 {**

**public static void main(String[] args) throws IOException{**

**FileInputStream instream = new FileInputStream("input.txt");**

**FileOutputStream outstream = new FileOutputStream("output.txt");**

**Scanner fscanner = new Scanner(instream);**

**PrintWriter pwriter = new PrintWriter(outstream);**

**double grade, sum = 0;**

**while(fscanner.hasNextDouble()){**

**grade = fscanner.nextDouble();**

**if(grade >= 60.0 && grade <= 95.0 )**

**sum += grade;**

**}**

**pwriter.printf("%.1f", sum);**

**fscanner.close();**

**pwriter.close();**

**}**

**}**