



King Saud University
College of Science
Department of Statistics & OR
Second Semester 1433-1434



201 CSc. Alternative Midterm Exam.

Question 1

1. What will be the output of the following statements: Change while statement to for statement.

```
x= 5;  
while (x>0)  
{  
    System.out.println("X is "+x);  
    x++;  
}
```

2. What will be the output of the following statements: Change while statement to do-while statement.

```
int i=5, n=6, sum=50;  
while (i<n)  
{  
    sum += i;  
    System.out.println("sum= "+sum);  
    i++;  
}
```

3. What will be the output of the following statements: Change for statement to do-while statement.

```
for (int x=0;x>7;x++)  
    System.out.println("X is "+x);
```

Question 2

Write a Java program that finds the value of

$$F = 1 - \exp(-a * x)$$

where *a* is a real number and *x* is a real positive number.

The values *a* and *x* should be read from the keyboard.

The value of *F* should be displayed on the screen.

Question 3

Write a Java program to implement the following algorithm. What will be the output of this program.

Set M=44 and N=28

While M not equal to N repeat:

 While M>N repeat:

 Replace value of M by M-N

 While N>M repeat:

 Replace value of N by N-M

. Display M

Stop

Question 4

Write complete program using three methods called *maxValue()*, *minValue()* and *range()* to find the maximum, minimum, and range of elements of an array declared and defined in the main method. Methods should be invoked properly from each other and from the main method.

With best wishes
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