

**REGENT UNIVERSITY**  
COLLEGE OF SCIENCE AND TECHNOLOGY



**SCHOOL INFORMATICS AND ENGINEERING**

**EXAMINATION PAPER**

**END OF FIRST SEMESTER EXAMINATIONS  
EXAMINATIONS**

**SIIS 1513: JAVA PROGRAMMING**

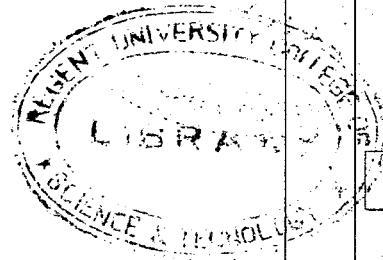
**Date: 08<sup>TH</sup> MAY 2009**

**Time Allowed: THREE HOURS**

**EXAMINATION MATERIAL PROVIDED: NONE**

**INSTRUCTION: CANDIDATES MUST ANSWER ALL IN  
SECTION A AND 3 IN SECTION B**

**LECTURER: FRANKLIN KOME AMOO**



### SECTION A

1. Identify the error in the following code segments and explain how to correct the program. Rewrite the corrected code. (5 marks each)
  - a. 

```
while( number < 10 );  
{  
    evenNumber = number + 2;  
    number++;
```
  - b. 

```
if( score > 80 );  
    System.out.println("The score is excellent.\n");  
Else;  
    System.out.println("The score is good.\n");
```
  - c. 

```
int product( int a, int b);  
{  
    int result;  
    result = a * b;  
}
```
  - d. 

```
switch( number )  
{  
    case 1:  
        System.out.println("The number is equal to 1\n");  
    case 2:  
        System.out.println("The number is equal to 2\n");  
        break;  
    default:  
        System.out.println("The number is not 1 and is not 2\n");  
        break;  
}
```

2. Write a single Java statement to accomplish the following tasks
  - a. Display the message "This is a java program." with each word separated by tabs
  - b. Declare the variables *speed* and *distance* to be of type int
  - c. Display the message "The answer is " followed by the value of the integer variable *result*
  - d. Test if the value of the variable *counter* is greater than 10. If it is, display "Counter is greater than 10"
  - e. Output integer variable *distance* using `System.out.println()`
  - f. Multiply the variable *weight* by the variable *height* and assign the result to *weight*
  - g. Add variable *initialSpeed* to *totalSpeed*, and assign the result to *totalSpeed*
  - h. Define an integer array *evenNumbers* with size 15
  - i. Assign the value 16 to the *eighth element* of the array *evenNumbers*
  - j. Assign the sum *xNumber* and *yNumber* to *zNumber* and increment *xNumber* after the calculation

### SECTION B

3. Write a Java program called Rainfall to accomplish the following tasks. Declare an integer array *monthlyRainfall* of size 12 and initialise it with the following figures: 85, 69, 60, 71, 80, 72, 98, 75, 89, 82, 56, 73. Using a for loop, display each array element against its position in a tabular form
4. Write a Java program called **Product** to accomplish the following tasks. Define three integer variables *pNumber*, *qNumber* and *numbersProduct*. Assign the product of *pNumber*, *qNumber* to *numbersProduct*. Use a `System.out.println()` statement to display the two numbers *pNumber*, and *qNumber* and their product on the same line. End the program with the message, "This is the end of the Product"

5. Write a Java program PayRoll to accomplish the following tasks. Declare a class called PayRoll. Declare the following variables as double; grossSalary = 3500, netSalary, incomeTax, ssfContribution, totalDeductions. Perform the following calculations using java statements.

```
ssfContribution = 0.03 x grossSalary;  
incomeTax = 0.05 x grossSalary;  
totaldeduction = incomeTax + ssfContribution;  
netSalary = grossSalary – totalDeduction
```

Display the value of the ssfContribution in a single statement. Display the value of incomeTax in a single statement. Display the totalDeductions in a single statement. Display the netSalary in a single statement. End the program with the message, "This employee is very rich"

6. Write a Java program to accomplish the following tasks. Define an integer array employeesAges with size 5; Initialise the first element with the value 25, the third element with 27, and the fifth element with 30. Display the values of the first, third and fifth elements on different lines using separate **System.out.println()** method. Leave a blank line between each statement displayed.
7. Write a Java program TwoNumbers to accomplish the following. Define four integer variables *firstNumber*, *secondNumber*, *numbersProduct* and *numbersTotal*. Assign the values 35 and 45 to *firstNumber* and *secondNumber* respectively and assign their sum to *numbersTotal*. Also, assign their product to numbersProduct. Display the two numbers and their sum on the same line, and their product another line. End the program with the statement "This is the end of the program"

