



**EASTERN UNIVERSITY, SRILANKA
DEPARTMENT OF MATHEMATICS
SECOND EXAMINATION IN SCIENCE – 2008 / 2009
FIRST SEMESTER (Feb./ Mar., 2010)
OC 206 - FUNDAMENTAL OF PROGRAMMING (JAVA)
(Proper & Repeat)**

Answer all question

Time: Two hours

1. a) Write a program in java to get the following output:

```

*****
 *
. ....
 *
.. ...
 *
... ..
 *
.... .
*****

```

(30marks)

b) Write a program that will read a float type value from the keyboard and print the following output.

->Small Integer not less than the number.

->Given Number.

->Largest Integer not greater than the number.

(40marks)

c) Write a program to Display the Inverted Triangle.

Example: Input : 5

Output:

5 5 5 5 5

4 4 4 4

3 3 3

2 2

1

(30marks)

2.

a) Suppose that a class, Employee, is defined as follows:

```
class Employee {  
    String lastName;  
    String firstName;  
    double hourlyWage;  
    int yearsWithCompany;  
}
```

Suppose that the data about 100 employees is already stored in an array:

```
Employee[] employeeData = new Employee[100];
```

Write a code segment that will output the first name, last name, and hourly wage of each employee who has been with the company for 20 years or more. (50marks)

b) Using Java Programming language write programs to create menus and pop-up menus. (50marks)

3.

a) What is animation?

Write an applet program in Java Programming language to explain animation in Java. (75marks)

b) Write a java program to draw a string and add font to this string. (25marks)

4.

a) Write an applet program using swing and awt in Java Programming language to add an image. (30marks)

b) Write a java program to draw a rectangle or oval shape and add color to this shape and view the shape in an applet window. (30marks)

c) Explain the basic concepts to connect a table from a database to a front end application prepared in Java Programming Language to get the bio data of students in a class. (40marks)