EASTERN UNIVERSITY, SRI LANKA
EXTERNAL DEGREE EXAMINATION IN SCIENCE – 2010/2011
SECOND YEAR, SECOND SEMESTER (March / May, 2017)
EXTMT 206 – INTRODUCTION TO OBJECT ORIENTED PROGRAMMING (JAVA)
SPECIAL REPEAT

Answer all questions

Time allowed: 2 Hour

Q1.

1. What is programming Language and list five programming languages in existence today?

2. State the difference between Compiler and Assembler.

3. Write down the basic structure of a java program using a simple example.

4. Give java statements that accomplish each of the following tasks:

    a. Declare an integer variable **var**.

    b. Prompt the user to enter an integer value.

    c. Read an integer value from the user and store it in the variable var.

    d. Display the variable and a message saying whether the number is positive, negative, or zero.

Q2.

1. Find the output of the following java code fragment.

    System.out.println (3 / 2 + 5.5);

    System.out.println(15.6 / 2 + 5);

    System.out.println(4 + 5 / 2.0);

    System.out.println(4 * 3 + 7 / 5 - 25.5);

2. Briefly explain the while **loop** with suitable example.

3. Write java statements that uses **while loop** or **for loop** to perform the following steps:

    a. Prompt the user to input two integers: **firstNum** and **secondNum** (**firstNum** must be less than **secondNum**),

    b. Output all odd numbers between **firstNum** and **secondNum**,

c. Output the sum of all even numbers between **firstNum** and **secondNum**,

4. Find the output of following code fragment:

```
for (int i=1 ; i<=6; i++)
    {
    for( int j=1; j<= 5; j++)
        {
        System.out.print ('&');
        }
    System.out.println();}
```

Q3.

1. State the difference between **Object** and **Class**.

2. Briefly explain what is meant by inheritance in Object Oriented Paradigm.

3. List the Access Modifiers in java programming

4. Define the following terms related with variables:

    a. Local variable,

    b. Instance variable,

    c. Class variable.

Q4.

1. Briefly explain the **default constructor** and **parameterized constructor**.

2. Discuss the difference between method **Overriding** and **Overloading** in java.

3. What are the difference between constructors and methods?

4. Illustrate the uses of **this** and **super** keywords with suitable example.