

SOUTH EASTERN UNIVERSITY OF SRI LANKA

FIRST EXAMINATION IN BACHELOR OF SCIENCE IN MANAGEMENT AND INFORMATION THECHNOLOGY – 2009 / 2010 SEMESTER – II, FEBRUARY - 2012

MIT 1243 – FUNDAMENTAL OF PROGRAMMING

Answer All Question

Duration: 03 Hours

Question 01

- 1. What do you mean by the term Variable in Java? (04 Marks)
- 2. What is Data Type? List out and briefly explain 05 of the primitive data types in Java (08 Marks)
- 3. The figure below shows that a java program named ArgsList is running. It takes 03 Command Line arguments as input and displays them as shown.

```
C:\SaNa>javac ArgsList.java
C:\SaNa>java ArgsList Samsudeen Sabraz Nawaz
Entry 01: Samsudeen
Entry 02: Sabraz
Entry 03: Nawaz
```

You are requested to write a Java program named ArgsList that does performs the above task. You are expected to take the input as Command Line arguments.

(08 Marks)

(Total: 20 Marks)

Question 02

- 1. Write a complete Java program that takes age of a person as input and checks his or her age. If he or she is older than or equal to 18 years the program should display a message "You are eligible to vote" otherwise is should display "You are not eligible to vote".Use Scanner class and suitable data types.

(10 Marks)

2. MAC(Pvt) Limited's salary structure is given below.

- If the Basic Salary is more than 30,000/=, the Dearness Allowance given to employees is 40% of the Basic Salary, otherwise 50% of the Basic Salary is given.
- If the Basic Salary is more than 25,000/=, the House Rent Allowance given to employees is 20% of the Basic Salary, otherwise an amount of 3,000/= is given.
- If the Total Salary is more than 55,000/=, an Income Tax is calculated at the rate of 12%. (Total Salary = Basic Salary + Dearness Allowance + House Rent Allowance).

Write a Java program that takes Basic Salary as input, calculate Dearness Allowance, House Rent Allowance, Total Salary, Income Tax, Net Salary, and display them all on screen.

Use Scanner class for input and use suitable data types.

(20 Marks)

(Total: 30 Marks)

Question 03

1. Briefly explain what an Array is in programming and how you declare and use it Java. Give an example with code.

(06 Marks)

2. What is Jagged Array? Explain with suitable example and code.

(06 Marks)

3. The following table shows numbers to be added in a rectangular array. Declare a suitable array and initialize them with the values as given in the table.

00	01
10	11
20	21
30	31

(08 Marks)

(Total: 20 Marks)

Question 04

Write a Java program that prints even numbers between 0 and 100 in reverse order using

- 1. While loop
- 2. For loop

(Total: 10 Marks)

Question 05

Describe the following terms clearly with suitable examples

- 1. Classes and Objects
- 2. Encapsulation
- 3. Polymorphism
- 4. Inheritance

(Total: 20 Marks)