**JAVA**

**Introduction to Java**

**Lab Exercise No:** 1

**Exercise Objective(s):** *Simple java program*

**Exercise:** *Write a program with a class name “Welcome” and display a message as follows: “Welcome*

*to the world of Java”*

**Recommended duration:** *10Mins*

**Solution Guidance (if applicable):** *NA*

**Lab Exercise No:** 2

**Exercise Objective(s):** *Compilation and execution from command line, Concept of object and class*

**Exercise:** *Write a program that takes a console input (Input given by the user while executing the*

*program in command line) and prints the same.*

**Recommended duration:** *10Mins*

**Solution Guidance (if applicable):** *The input can be printed as follows.*

*System.out.println ("Message: "+args [0]);*

**Lab Exercise No:** 3

**Exercise Objective(s):** *Comments in java programs and java documentation*

**Exercise:** *Write a program with all the type of comments and execute it. User nested comments also.*

**Recommended duration:** *10Mins*

**Solution Guidance (if applicable):** *NA*

**JAVA**

**Basic elements of Java**

**Lab Exercise No:** 4

**Exercise Objective(s):** *Primitive data types and their range, Variables, Constants and literals,*

*Conventions*

**Exercise:** *Write a program which declares variables of int, float, double data types and a constant of*

*long data type and displays all with an appropriate message. Follow the naming conventions*

*for all the variables and literals.*

**Recommended duration:** *10Mins*

**Solution Guidance (if applicable):** *NA*

**Lab Exercise No:** 5

**Exercise Objective(s):** *Simple operators*

**Exercise:** *Write a program to get two numbers as input through command line and swap the values of*

*two numbers without using a temporary variable and display the same.*

**Recommended duration:** *20Mins*

**Solution Guidance (if applicable):** *a = a + b*

*b = a – b*

*b = a - b*

**Lab Exercise No:** 6

**Exercise Objective(s):** *Conditional statements*

**Exercise:** *Write a program to determine whether the given year is leap year or not(Get the input*

*through command line).*

**Recommended duration:** *20Mins*

**Solution Guidance (if applicable):** *NA*

**Lab Exercise No:** 7

**Exercise Objective(s):** *Conditional statements*

**Exercise:** *Write a program to determine the largest of three numbers.*

**Recommended duration:** *20Mins*

**Solution Guidance (if applicable):** *NA*

**Lab Exercise No:** 8

**Exercise Objective(s):** *Loops*

**Exercise:** *Write a program to determine whether a number is a palindrome or not.*

**Recommended duration:** *20Mins*

**Solution Guidance (if applicable):** *NA*

**Lab Exercise No:** 9

**Exercise Objective(s):** *Loops*

**Exercise:** *Write a program to display the Fibonacci series starting from 0 till 200.*

**Recommended duration:** *20Mins*

**Solution Guidance (if applicable):** *NA*

**Lab Exercise No:** 10

**Exercise Objective(s):** *Constants and literals, Loops*

**Exercise:** *Write a program to declare a set of 5 words and reverse each word and arrange the resulting*

*words in alphabetical order and display the same.*

**Recommended duration:** *20Mins*

**Solution Guidance (if applicable):** *NA*

**Lab Exercise No:** 11

**Exercise Objective(s):** *Constants and literals, Loops*

**Exercise:** *Write a program to arrange an array of elements in ascending order using selection sort*

*algorithm.*

**Recommended duration:** *20Mins*

**Solution Guidance (if applicable):** *NA*

**Lab Exercise No:** 12

**Exercise Objective(s):** *Conditional statements, Loops*

**Exercise:** *A shopkeeper sells three products whose retail prices are as follows:*

*Product 1 - 22.50*

*Product 2 - 44.50*

*Product 3 - 9.98*

*Write an application that reads a series of pairs of numbers as follows:*

*a) Product number*

*b) Quantity sold*

*The application should use a switch statement to determine the retail price for each product. It*

*should calculate and display the total retail value of all products sold.*

**Recommended duration:** *20Mins*

**Solution Guidance (if applicable):** *NA*

**Lab Exercise No:** 13

**Exercise Objective(s):** *Simple operators, Conditional statements, Loops*

**Exercise:** *Consider user has N eggs. Then display the no of eggs in gross (144 eggs make one gross) and*

*no of eggs in dozen (12 eggs make one dozen) and the no of eggs that is left out remaining.*

*The total no of eggs can be got as input through command line. The program should display*

*how many gross, how many dozen, and how many left over eggs the user has.*

**Recommended duration:** *20Mins*

**Solution Guidance (if applicable):** *For example, if the input is 1342 eggs, then the program should respond with*

*Your number of eggs is 9 gross, 3 dozen, and 10*