**Department of Computer Science and Engineering**

**Amrita School of Engineering**

**Amrita Vishwa Vidyapeetham – Coimbatore**

Int. M.Sc Data Science V Sem

18CSC381 – Open Lab (Java)

*Lab Evaluation* – II

**Set 1**

**Each Program carries 5 marks**

**Evaluation Criteria – 3 marks for Logic + Explanation, 2 marks for Output**

1. Write a program to print all permutations of a String in Java. The string needs to be accepted from the user. For example

Enter the Input String: 123

**Output Should be:**

123

132

213

231

312

321

2. Write a Java program to create and store integer values from 1 to 50.Now create 3 new sub arrays by finding the elements of the integer array that are divisible by 2,5 and 10 and display the elements of the 3 new arrays created

3. Write a java program that involves implementing inheritance with a base class Account having two attributes Account Number and Principal (double precision real number) and two derived classes Simple and Compound.

Interest for the Simple Account is calculated using the formula,

SI = P \* R\* T (SI – Simple Interest, P – Principal, R- Rate of Interest / Annum 5%

And Time in years 10)

And for Compound Account,

CI = P[1+R/100]T CI – Compound Interest, R – 10%, T – 5 yrs.

Write methods in the classes to calculate and display the respective Interest for Simple and Compound Accounts