### Total Marks: 20 Total Duration: 3 hours

## Instructions:

1. Read the instructions and Problem statement carefully.
2. Use Eclipse Europa/Ganymede which will be available on your machine.
3. Select workspace at D:\JavaAssignments
4. **Use the projects as provided to you**. There are 5 projects in the workspace.
5. **Use the same Client.java** provided to you in the project.
6. Object oriented Programming is mandatory for the solution implementation.
7. For your reference, Java Documentation for Java 5 is made available on your machine.
8. **CODE WITH COMPILATION ERRORS WILL NOT BE ACCEPTED.**
9. **Please use the same workspace and projects as provided to you. If any change in workspace name or project name or classes provided, Code WILL NOT BE ACCEPTED.**
10. PLEASE DO NOT PUT YOUR EMPLOYEE ID OR NAME IN YOUR ANSWER SHEETS OR IN FOLDER NAMES. PAPERS HAVING THESE DETAILS WILL BE DISQUALIFIED.

## Problem Statement

The Provident Fund office maintains a record of all P.F. accounts with them irrespective of whether the accounts are active or not (i.e. closed). A file named **pf-records.db** has been provided to you which contains details of 5 P.F. accounts. These are 5 serialized objects of a bean class named **PFAccount** which has been provided to you. Write a method to retrieve the details of all the 5 accounts through the following method

**public static List<PFAccount> readProvidentFundRecords(File file);**

**This method has been provided to you in Client.java. Please do not change the method signature. You are free to add more data members and methods.**

**A bean class named PFAccount has been provided.**

One of the account holders with the a/c number **MH/96269/380** wishes to withdraw all the amount and close his/her account. When an account is closed the account holder is paid back the principal amount alongwith 9% interest compounded annually until the withdrawal date. It is assumed that a year has 365 days.

Implement the interest calculating functionality through the following method:

**public static void calculateMaturityAmount(PFAccount account);**

**This method has been provided to you in Client.java. Please do not change the method signature. You are free to add more data members and methods.**

Implement the account closing feature with the following method:

**public static void closeAccount(PFAccount account);**

All accounts records are to be written back to the **pf-records.db** file with the following method:

**public static void writeProvidentFundRecords(List<PFAccount> records, File file)**

**These methods have been provided to you in Client.java. Please do not change the method signature. You are free to add more data members and methods.**