DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ANNA UNIVERSITY, CHENNAI 600025
CS6308-JAVA PROGRAMMING

TIME: 01:00 Hour   **Lab Test**   **TOTAL MARKS: 25**

1. Define a class called **Inventory** that has following the data members: **item name** (String), **item cost** (double), **no_of_items** (integer). The member functions are: constructor with three arguments, **void procureItems(int qty)** which will increase the number of items corresponding to the quantity procured, **void sellItems(int qty)** which will decrease the number of items corresponding to the quantity sold , and void display() which will print the **Inventory** class details.
Ensure that the **sellItems()** throws appropriate exception if the number of items sold exceeds the total number of items in Inventory. Test the functionalities of the Inventory class by creating an instance in the driver program. Handle exception when **procureItems**() is called when the number of items is greater than zero. (10)

Code status and marks splitup	Marks
No code	0
Compilation Error –meaning less code	3
Compilation Error but meaning full code	5
Compilation Success- but partially works	8
Compilation Success for all possible cases	10

2. Define abstract class called **DepartmentFaculty** whose data members are: **departmentName(String), facultyName(String)** and **years_exp(double)** and member functions are: constructor with two arguments**, toString**() that prints the Department information.
Inherit the following classes:
TeachingFaculty with members: **designation (String), salary(double)** and constructor with two arguments, **toString**() that prints the **TeachingFaculty** information
NonTeachingFaculty with members: **designation (String), wagesperday(double), no_days(integer)** and constructor with two arguments, **calculatSalary**() that finds

the total salary based on number of days worked**, toString()** that prints the **NonTeachingFaculty** information

Both the classes implement **interface Bonus** defined as follows:

public interface Bonus{

public double calculateBouns();

}

The bonus is given as 10% of salary for the **TeachingFaculty** and 25 % of salary for **NonTeachingFaculty.** Write a main method to test the class instances. (15)

Code status and marks splitup	Marks
No code	0
Compilation Error –meaning less code	3
Compilation Error but meaning full code	8
Compilation Success- but partially works	12
Compilation Success for all possible cases	15