CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING

**Advanced Computing Training School**

**Course Name :** PG Diploma in Advanced Computing

**Batch : March 2022 (set 4)**

**Module Name :** OOPs with Java **Date :** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Student Name :**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Max Marks :** 40 Marks

**PRN No :** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Duration :** 2 Hours

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**Q1. Suppose that we have to deal with motor vehicles, including cars, trucks, and motorcycles. (25 marks)**

**- Every Vehicle has is own Registration Number (String), Owner(Person) and Number of wheels (Integer)**

**- Every Vehicle requires registration\_amount and it is depended on Number of wheels.**

**registration\_amount = 5000 \* Number of wheels \* Y**

**Where, X = 12.2 for Car, 10.2 for Truck and 8.2 for motorcycle**

**Demonstrate use of Inheritance/Polymorphism in calculating Vehicle insurance amount**

**Also create List of 5 different Vehicles and display each vehicle details using iterator**

**Q2. Write a program that accepts inspiring quotes from user and append them to a text file. (15 marks)**

**Write another program that reads the text file and create a ArrayList of all the quotes.**

**Iterate though ArrayList and print each quote on console.**

**Evaluation Of Lab Exam should be based on following criteria:**

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| --- | --- | --- | --- |
| **Criteria** | **Details** | **Max**  **Marks** | **Marks**  **Obtain** |
| **Algorithm** | **Documentation of Algorithm and Flowchart** | **2** |  |
| **Program adheres to the algorithm and flowchart** | **2** |  |
| **Efficiency** | **Program is using only the required number of variables**  **/conditions/loops/pointers etc and is optimal** | **2** |  |
| **Correctness** | **The program produces desired output for a given input** | **20** |  |
| **The program handles all valid and Invalid inputs** |  |
| **Software**  **Engineering**  **Principles** | **The program has meaning variable/function names** | **2** |  |
| **The program is commented properly (At least 20% of the**  **code should be commented)** | **2** |  |
| **Viva** |  | **10** |  |
|  | ***Total Marks*** | **40** |  |
| **cccccccc** |  |  |  |