VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

FALL Semester 2019-2020

Assignment – 2

Programme Name: BSc. (CS) **Slot: L49 + L50**

Course Code: CSC2002 **Course Title: OOP Lab**

Faculty Name: Chandra Mouliswaran S. & Chemmalar Selvi **Maximum Marks: 10**

ANSWER ANY THREE QUESTIONS (LAST DATE FOR SUBMISSION: 28.02.2020)

1. By *applying the constructor overloading*, create the two vectors or arrays which hold the Internal Assessment Marks (IAM) and Final Assessment marks (FAM) of a class of students and grade the students based on the total marks in Internal as well as Final. Follow the VIT grading system.

2. Consider the system of measuring the distance by feet and inches. Develop an OOP to create two Distance objects and compare them to produce the results between the Distance object as "Larger" or "Equal" or "Smaller" with the difference on their distance.

3. Develop an OOP to get the purchase date of a machine and find the age of machine currently.

4. Implement an OOP to accept the set of items purchased from a store as strings and sort them in ascending order and Descending order by applying the function or *method overloading*.

5. Construct an OOP to find the distance travelled by a Vehicle in "t" seconds is given by

$$\textbf{Distance} = u \times t = ((a \times t^2) / 2).$$

Here, "u" is the initial velocity (meters per second) and "a" is the acceleration (meters per second^2). Write an OOP to evaluate the distance travelled at regular intervals of time, given the values of "u" and "a". The program should provide the flexibility to the user to select his own time intervals and repeat the calculations for different values of "u" and "a".

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