

### **Assignment # 5**

#### **CSE 308 (Section B)**

**Date and Time: Aug 16, 2022, 2:30 PM**

**Duration: 1 hour 40 mins**

**Special Instruction:** Plagiarism is strictly prohibited. You can use preloaded resources on software engineering pattern and Programming Language/Tools during the exam. You can use the printed material or class notes on software engineering pattern and Programming Language/Tools during the exam. But the Internet connection will be off during the exam and evaluation.

**Question:** An electronic circuit provides the temperature of the environment using a temperature sensor. You are to develop a system that shows the average and maximum temperature of the day from the beginning of the day. You have to demonstrate the system using observer pattern. Use a random function to simulate the electronic circuit providing the temperature. The status of the environment will be demonstrated by calculating the average temperature of the day and the maximum temperature of the day. In your program you can consider the system for single day.

**Evaluation:** The teachers will evaluate the assignment right after duration of the exam is over. You have to turn off the monitor or screen when the exam duration is over.