United International University (UIU)
Dept. of Computer Science & Engineering (CSE)

Mid Term Exam, Trimester: Spring 2022
Course Code: CSI 321, Course Title: SOFTWARE ENGINEERING
Total Marks: 30, Duration: 1 hour 45 minutes

Any examinee found adopting unfair means will be expelled from the trimester/ program as per UIU disciplinary rules.

(Answer All Questions)

Question # 1:

a) What is regression testing? Why should we do regression testing after an integration test? Support your argument. (CO1) [6]

b) Who plays the role of a code reviewer? Also, mention some of the aspects that he/she can check while reviewing a code. (CO1) [6]

c) "3-tier architecture is the best option for any project scale"- to what extent do you agree with this statement? Support your argument. (CO1) [6]

Question # 2:

a) Draw UML diagram for the following scenario using appropriate design pattern:

Think about the adaptive power settings of a laptop. It follows different strategies based on situation. If you are using your laptop on battery, it minimizes the power usage by reducing overall performance. If your laptop is plugged in, it provides high performance without bothering about power consumption. And if the battery status is significantly poor (e.g., less than 15%), it stops some of the active features like Bluetooth, GPS etc. (CO2) (strategy) [6]

b) Consider the following scenario, and explain how you will implement MVC in this manner:
Suppose you need to build a webpage that contains employees' information. There is an 'Employee' table in the database. So, you can retrieve relevant data of an employee from this table and show it on the page. Also, you plan to include a *create* and a *remove* button on that page. Clicking on them respectively, insert and delete the employee's info in the 'Employee' table. (CO2) [6]

View → Controller → Model