



EAST WEST UNIVERSITY

Department of Computer Science and Engineering

B.Sc. in Computer Science and Engineering Program

Mid Term Examination, Spring 2024 Semester

Course: CSE 430 Software Testing and Quality Assurance, Section 2

Instructor: Anika Tabassum

Full Marks: 30

Time: 1 Hour

Note: There are 4 (FOUR) questions, answer ALL of them.

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1. Suppose you are a software tester. The project you are now going to test finds out the number and location of a stall in the book fair, It takes the name of the stall as input and shows a map of the stall as output. As the book fair is nearby, there is very little time on your hands to test the program. Now, as a tester should you test the program? What are the **long-term** benefits you will get from testing the application? [CO2, C3, Marks: 1+3=4]
 2. To avoid software faults or to lower fault rates as well as improve productivity what SQA system components can you use? Briefly describe what the components include. [CO1, C3, Marks: 2+4= 6]
 3. Consider a software application that accepts user input for the age and name of a person, with a valid age range of **18 to 65** and a name as a String up to **8 characters**. The output shows if the person is eligible for covid vaccine or not. Using the **robustness testing technique**, show the possible test cases. [CO2, C3, C4, Marks= 7]
 4. Consider a scenario where a software application requires users to enter their credit card information for a payment transaction and return "**Payment Completed**" if the card is valid and "**Invalid Card Information**" otherwise. The credit card information typically includes the **card number (String of 8 digits, numeric characters only (0-9))**, **CVV (Card Verification Value) (String of 3 digits, numeric characters only)**, and **Expiration date in (MM/YY) format where 1<MM<12 and 10<YYYY<30**.
Example input:
Card number: 4758 5412
CVV: 547
Expiration Date: 05/14
Output Format: Payment Completed
Using the **equivalence class testing technique**, identify test cases for all the valid and invalid classes. [CO2, C3, C4, Marks= 13]

Good luck!