



UNITED INTERNATIONAL UNIVERSITY (UIU)

Dept. of Computer Science & Engineering

Trimester: Summer 2022

Course No: CSE 4495

Title: Software Quality Assurance and Testing

Section: A

Time: 20 minutes

Marks: 20

Name	ID
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1. You manage an online service that sells downloadable video recordings of classic movies. A typical download takes one hour, and an interrupted download must be restarted from the beginning. The number of customers engaged in a download at any given time ranges from about 10 to about 150 during peak hours. On average, your system goes down (dropping all connections) about two times per week, for an average of three minutes each time. If you can double availability by reducing downtime or double mean time between failures, but not both, which will you choose? Why? **[8]**
2. What are the properties of 'Dependability' and what is the relationship between them? **[7]**
3. A calendar program should provide timely reminders; for example, it should remind the user of an upcoming event early enough for the user to take action, but not too early. Unfortunately, "early enough" and "too early" are qualities that can only be validated with actual users. How might you derive verifiable dependability properties from the timeliness requirement? **[5]**