



UNITED INTERNATIONAL UNIVERSITY (UIU)

Dept. of Computer Science & Engineering

Trimester: Summer 2022

Course No: CSE 4495

Title: Software Quality Assurance and Testing

Section: B

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. If the system crashes once on avg. everyday, and it takes about an hour usually to restart the system what is the probabilistic availability of this system? **[5]**

2. Briefly discuss the 'Reliability' and 'Correctness' sub-attributes of dependability and point out their difference **[5]**

3. Imagine you are the lead developer of FreeSpace.Inc game studios. Your company wants to release a new mobile shooting game that will rival popular games like Free Fire, PUBGm etc. To achieve this your system needs to fulfil the following requirements-availability of at least 99.6%, a probability of failure on demand of less than 0.05, and a rate of fault occurrence of less than 4 failures per 36 hour work period. After the testing is done you receive the following report from the testing team – During 10 days of testing the system processed **18972** requests. Some of these requests ended in failure. Three types of failures were observed -
- i. **26** times the system showed an user wrong information about enemy position.
 - ii. **27** times the game disconnected the user from a match.
 - iii. **32** times the whole system crashed, and servers needed to be restarted. Each restart took 5 minutes (Avg.)
- Now depending on this report measure the availability, POFOD and ROCOF of your system. Also decide whether your software is ready for release.

[10]