ELIZADE UNIVERSITY

ILARA-MOKIN

FACULTY: BASIC AND APPLIED SCIENCES
DEPARTMENT: MATHEMATICS AND COMPUTER SCIENCE
1st **SEMESTER EXAMINATION**
2020 / 2021 **ACADEMIC SESSION**

COURSE CODE: CSC 431

COURSE TITLE: Computer System Performance Evaluation

COURSE LEADER: Dr. Bukola Onyekwelu

DURATION: 2 Hours

HOD's SIGNATURE

INSTRUCTION:

Candidates should answer any **FOUR** Questions.

Students are warned that possession of any unauthorized materials in an examination is a serious assessment offence

Students are permitted to use ONLY a scientific calculator.

1a. List the seven (7) goals of Performance Evaluation and describe four (4of them.
b. What are the steps carried out in Capacity Planning?
c. What are the measures used in High Availability Systems? In what environment are the used(Give example)?

2a. Some systems are Mission Oriented. Explain, giving 3 examples
b. There are Computer Systems that should have considerable intelligence built in to do diagnostics and repair either automatically or by remote control from a ground station. In what Application Domain are they found?
c. What Performance Measure is employed in this Domain?

3a. Discuss the goals of Performance Modelling.
b. Performance measurement serves two purposes. What are they?
c. List and explain the three (3) classes of Performance Metric.

4a. What are Monitors?
b. List the two types of Monitors based on Trigger Mechanisms, and state their area of use.
c. What are the basic building blocks of Hardware Monitors? Describe three (3) of them.

5a. Simulation analysis is a tool to evaluate the performance of any system. Give the reasons.
b. Draw the diagram of the Overall Simulation Process
c. Define Verification and Validation

6a. Define:
i. Workload of a system
ii. Workload Characterization
iii. Averaging
iv. Micro-benchmarking
v. Macro- benchmark

b. Draw a block diagram to show the workload characterization process.