(The University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

UNIVERSITY EXAMINATIONS

MAIN CAMPUS

2021/2022 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER EXAMINATIONS

FOR THE DEGREE

OF

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

COURSE CODE: **BCS 226**

COURSE TITLE: **CLIENT SERVER ARCHITECTURE**

DATE: Tuesday 19/04/2022 **TIME:** 8:00a.m-10:00a.m

INSTRUCTIONS TO CANDIDATES

Answer questions ONE and any other TWO questions.

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

QUESTION ONE (30 MARKS) COMPULSORY

a) Explain your understanding of Message Oriented Middleware (MOM)   [4 Mks]

b) What relationship exists between a client and server?   [3 Mks]

c) Choosing the right tools to develop Client/Server applications is one of the most critical decisions. Outline any 5 tools that can aide the above   [5 Mks]

d) The School of computing intends to streamline its systems, state and explain three server services they will need.   [6 Mks]

e) Elaborate your understanding of fat and thin in a client/ server architecture   [4 Mks]

f) Elucidate on downsizing and rightsizing   [2 Mks]

g) In client server architecture, what do you mean by Availability, Reliability, Serviceability and Security?   [4 Mks]

a) Explain the three-layered application architecture   [2 Mks]

QUESTION TWO (20 MARKS)

a) Raj Investment Group intends to centralize their operations by introducing a server in their network. Discuss the benefits that will accrue to the organization   [10 Mks]

b) There are various forces that drive the move to client/server computing. Discuss   [10 Mks]

QUESTION THREE (20 MARKS)

a) What is client server system development methodology? Explain different phases of System Integration Life-Cycle.   [12 Mks]

b) Discuss the misconceptions on Client/Server Computing   [8 Mks]

QUESTION FOUR (20 MARKS)

a) State and discuss some of the communication options available for operating intranet to outsiders to create an extranet.   [10 Mks]

b) What is the future of Client/Server computing in the following technologies: -
(i) Geographic Information System (GIS).
(ii) Point of Service Technology (POS).
(iii) Electronic Data Interface Technology (EDI).
(iv) Multimedia.   [8 Mks]

c) Explain your understanding of a File Transfer Protocol.   [2 Mks]

QUESTION FIVE (20 MARKS)

a) Explain any FOUR trending threats that affect client/server computing today [8 Mks]

b) Explain the benefits of a web/database system as compared to traditional database approach in client/server [5 Mks]

c) Describe the benefits of client server computing managed on a distributed system [7 MKs]