KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR

END OF SEMESTER EXAMINATIONS
YEAR TWO SEMESTER TWO EXAMINATIONS

FOR THE degree IN
COMPUTER SCIENCE

COURSE CODE : **CSC 226**
COURSE TITLE : **CLIENT/SERVER COMPUTING**

DATE: 14/04/2023   TIME: 9AM-11AM

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

Question One

a) What are the five technologies that can be used to create client/server applications in the client/server architecture [10 Marks]

b) Using examples, describe **Three** business and **Three** Technical forces that drive the move to Client/Server computing widely [6 Marks]

c) Giving examples differentiate between stateful and stateless servers [4 Marks]

d) Explain **Five** advantages of using client server computing [10 Marks]

Question Two

a) What is a client server architecture [1 Marks]

b) Illustrate the three types of Client/Server systems in existence [9 Marks]

c) Explain some of the use cases of client server architecture [10 Marks]

Question Three

a) Components of the Client/Server architecture must conform to some basic principles, if they are to interact properly. Discuss the principles. [10 Marks]

b) What are the base services provided by the OS in a client server environment [4 Marks]

c) Explain the role of the following in a client server environment [6 Marks]
  a) Object Server
  b) Transaction Server
  c) TP Monitor

Question Four

a) A plan is normally developed before starting the design and development of client server system. The objective of the plan is to build and obtain end user and managerial support for the future client/server environment. Describe the six main phases that are part of the plan to enable development of client/server systems. [20 Marks]

Question Five

a) What is Remote Procedure Call? [2 Marks]

b) Explain how the following client-server architecture work? [6 Marks]
  i. Mainframe-based Environment
  ii. LAN-based Environment
  iii. Internet-based Environment

c) Discuss the main services provided by the following components in the client server environment? [12 Marks]
  a. Client
  b. Middleware
  c. Server