(Knowledge for Development)

# KIBABII UNIVERSITY

## (KIBU)

## UNIVERSITY EXAMINATIONS
## 2019/2020 ACADEMIC YEAR

## SPECIAL/SUPPLEMENTARY EXAMINATIONS
## YEAR THREE SEMESTER TWO EXAMINATIONS

## FOR THE DEGREE OF
## BACHELORS OF SCIENCE
## (INFORMATION TECHNOLOGY)

COURSE CODE  :  BIT 323

COURSE TITLE  :  INTEGRATIVE PROGRAMMING

DATE: 11/02/2021                    TIME: 2.00 P.M – 4.00 PM

## INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO

## QUESTION ONE (COMPULSORY) [30 MARKS]

1. Discuss the role of scripting languages in programming [4marks]
2. Describe the structure for XML Data [6marks]
3. There are two mechanisms that can be used to specify an XML Schema. State and explain [4marks]
4. Define Document Type Definition (DTD) [2marks]

5. Describe the two styles that can be used message queuing [4marks]
6. State five reasons why integration is important [5marks]
7. List the five steps involved in passing messages in a messaging transaction [5marks]

## QUESTION TWO [20 MARKS]

1. Define message queuing [2marks]
2. Explain why one would prefer DCOM over COM architecture [6marks]
3. Differentiate between Evidence-based security and Code access security [4marks]
4. Write a simple bank DTD that has the following elements: Bank, Account, Customer and Depositor. [8marks]

## QUESTION THREE [20 MARKS]

1. Explain how COM could solve the versioning problems as well as providing connection services without undue overhead. [8marks]
2. Explain why XML is a better language for use in inter-program communications. [4marks]
3. Describe interoperability [4marks]

4. Explain when one is most likely to get the dreaded "Can't Create Object" message in a DCOM transaction. [4marks]

## QUESTION FOUR [20 MARKS]

1. Describe the three integration models that can be used to integrate systems [6marks]
2. Discuss how an RMI application works [8marks]
3. Explain why XML is said to be self-documenting [1marks]
4. What is the difference between data level and function level integration model? Which model is more complex and why? [5marks]

## QUESTION FIVE [20 MARKS]

1. There are four methods used in application integration. Discuss [8marks]
2. Explain the function of xPath as used in XML [2marks]
3. Within a CORBA development process, there are a number of unique terms specific to a CORBA implementation. Describe the following terms. [6marks]
   a. Interoperability.......... Group
4. Define [4marks]
   a. Intersystem communications
   b. Intersystem Architecture