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# KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY
## UNIVERSITY EXAMINATION, 2022/2023 ACADEMIC YEAR
## THIRD YEAR, FIRST SEMESTER EXAMINATION
## FOR THE DEGREE OF BACHELOR OF BUSINESS INFORMATION TECHNOLOGY

Date: 28th July, 2022
Time: 2.30 –4.30pm

## KBI 2303 - SPECIALIZED PROGRAMMING LANGUAGES

**INSTRUCTIONS TO CANDIDATES**

ANSWER **QUESTION ONE (COMPULSORY)** AND **ANY OTHER TWO** QUESTIONS

**QUESTION ONE (30 MARKS)**

a)   Define the following terms;

   i)    Syntax errors

   ii)   Semantics errors

   iii)  Machine level language

   iv)   Assembly level language

   v)    High level language                                                         (10 Marks)

b)   Outline six reasons why studying concepts of programming languages is important.
                                                                                      (6 Marks)

c)   Amina, a newly recruited software developer was assigned a software system to develop for ABC Ltd. Advise her on the criteria she can employ to decide the programming language to use for the software development.                                           (8 Marks)

d)   Define Service oriented Architecture (SOA) as a style of software design using a well labeled diagram                                                                       (6 Marks)

**QUESTION TWO (20 MARKS)**

a)   Differentiate between Micro controllers and Microprocessors.

                                                                                      (4 Marks)

b)   Name and describe four components of web services.

                                                                                      (4 Marks)

c)   Discuss six application areas of Micro controllers giving examples in each.

                                                                                      (12 Marks)

**QUESTION THREE (20 MARKS)**

a)      What is a data type in a programming language?

(2 Marks)

b)      Define business process.

(2 Marks)

c)      Describe three High level Programming language giving examples.

(6 Marks)

d)      Highlight four advantages of ERP systems within an enterprise.

(2 Marks)

e)       With the use of a well labeled diagram, explain the input/output devices of a micro controller

(4 Marks)

f)      Advice ABC company on the benefits of acquiring an ERP system within the organization.

(4 Marks)


**QUESTION FOUR  (20 MARKS)**

a)       What is a Programmable Logic Controller?

(2 Marks)

b)      Give four advantages and four disadvantages of using PLC's

(8 Marks)

c)      Define an ERP System and Why Is It Used in an organization

(2 Marks)

d)      Describe the ERP Implementation Life Cycle using a diagram

(8 Marks)


**QUESTION  FIVE  (20 MARKS)**

a)      What is a web service?

(2 Marks)

b)      Define the six characteristics of Service Oriented Architecture.

(4 Marks)

c)      What is a Programmable Logic Controller (PLC).

(2 Marks)

d)       Explain and draw a diagram of a PLC architecture.

(12 Marks)