



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF INFORMATION
AND COMMUNICATION TECHNOLOGY

3 YEAR 2 SEMESTER 2024/2025 ACADEMIC YEAR

MAIN CAMPUS (SSP)

COURSE CODE: ITB 1310

COURSE TITLE: USER INTERFACE DESIGN AND PROGRAMMING

EXAM VENUE: CL 3, CL2

STREAM: ICT

DATE: 22/4/2025

TIME: 2.00 HOURS SESSION: 15.00-17.00

INSTRUCTIONS:

1. Answer Question 1 (Compulsory) and ANY other two questions
2. Candidates are advised not to write on the question paper
3. Candidates must hand in their answer booklets to the invigilator while in the examination room
4. Mobile phones are NOT allowed in the examination room.

QUESTION ONE(COMPULSORY)**30 MARKS**

- a) List and give examples of five components of control tool property window
(5 MARKS)
- b) Discuss the three types of user interfaces
(5 MARKS)
- c) Explain what is accomplished by the Dialogs produces by the following code statements
- i) `Msgbox"Still Young To Vote", vbOKOnly + vbQuestion`
 - ii) `regno(num) = InputBox("please enter the your registration number")`
(5 MARKS)
- d) Why is user interface design and programming always referred to as "Event Driven"
(5 MARKS)
- e) With a simple program code, illustrate how list box differs from combo box control in graphical user interface application development.
(5 MARKS)
- f) Write a simple program code for array declaration and initialization methods
(5 MARKS)

QUESTION TWO**(20 marks)**

- a) Write simple program that accepts two integers, compares them and display the relationship between them i.e. whether they are the same or one is greater than the other
(10 MARKS)
- b) Differentiate between coding and Testing in user interface design and programming.
(10 MARKS)

QUESTION THREE 20 MARKS

- a) Write a program that accepts money in US, British and or Japanese currencies through an Input Box function and converts it to Kenya Shillings, through the use of a function named convert. The program should output the Kenya Shilling value through a Message Box function upon the click of a command button. (1 US Dollar = 100 Kshs, 1 pound = 120 kshs and 1 yen = 50kshs)
(10 MARKS)

b) Given the table below grades corresponds the message? Use it to answer the question that follows!

Grade	Message
A	Excellence
B	Good
C	Above average
D	Average
E	Fair
Bellow E	Invalid

Write a simple program that will accept a letter i.e. (A to E) through an inputbox and display the message through message box .use if elseThen control structure.

(10 marks)

QUESTION FOUR

(20 MARKS)

a) Explain the components of a good user interface application (10 MARKS)

b) Explain how to implement the type of fornext loop structures as used in user interface programming (10 marks)

QUESTION FIVE

(20 MARKS)

Study the GUI bellow and answer the question that follow

The screenshot shows a Windows-style window titled "Form1" with a grid background. It contains the following elements:

- Labels and text boxes: "Admission" with value "1", "Surname" with value "John", "Course" with value "2", and "Sex" with value "Male".
- A list box labeled "Students" with a scroll bar.
- A set of control buttons: "Add", "Update", "Cancel", "Delete", "First", "Previous", "Next", "Last", and "Exit".

The data control above is linked to a table named tblstudentDetails in a database called "school.mdb" whose path is "c:\Application\schoo.mdb" table details has the following fields, Admission number,surname,coursecode,sex.

a) Write the code that should be tied to the following command button to achieve the following:

- Add records
 - Update the database
 - Move to the next record
 - Move to the first record
 - delete the record from the Database
- (10 MARKS)

b) List and Explain Five main features and characteristics of a good user interface

(10 MARKS)

JOOUST OBSERVES ZERO TOLERANCE TO EXAM CHEATING