



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2010/2011

INSTITUTE OF OPEN LEARNING

EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

SIT 104 VISUAL PROGRAMMING

DATE: Friday 4th February, 2011

TIME: 4.30 p.m. – 6.30 p.m.

INSTRUCTIONS

Answer Question One and Any Other Two questions

Question 1

- a) Briefly explain the importance of the following windows as used in visual basic IDE
- i) Properties Window
 - ii) Project Explorer Window
 - iii) Toolbox (6 marks)
- b) You have been assigned the task by Kangemi High School to prepare an application that will be used to accept marks in five subjects and calculate and display the total and average. The application should also calculate and display the average grade which is based on the average mark using the classification below: -

Average Mark	Average Grade
80 – 100	A
70 – 80	B
60 – 70	C
50 – 60	D
0 – 50	E

NB: Input is via text boxes and output is via labels.

- i) Sketch the GUI. (2 marks)
 - ii) Write the code for your program. (8 marks)
- c) Rewrite the following code making **proper** use of the **With** statement. (4 marks)

```

txtReligion.Text = "Muslim"
lblReligion.Left = 20
txtReligion.Enabled = False
lblReligion.Caption = "Religion"
lblReligion.Top = 120
txtReligion.Locked = True

```

d) Re write the following code snippet using if...else construct

```

Select Case bytMonths
    Case 1, 3, 5, 7, 8, 10, 12
        strDays = "Months with thirty one days"
    Case 4, 6, 9, 11
        strDays = "Months with thirty days"
    Case 2
        strDays = "This is February!"
    Case Else
        'Invalid month
End Select

```

(4 marks)

e) Using the **For/Next** loop structure, write a program to get the sum of the first 15 numbers in the following series. The output should be given in a picture box: -

2, 6, 18, 54...

(6 marks)

Question 2

a) Study the GUI below and answer the questions that follow: -



Write code to do each of the following: -

- Populate the list box with the country names shown, setting Tanzania as the default when the form loads. (4 marks)
- Display a country name in Text1 when it is clicked. (2 marks)
- Transfer the country name displayed in Text1 to Text2 leaving Text1 blank when the command button captioned "Transfer" is clicked. (2 marks)

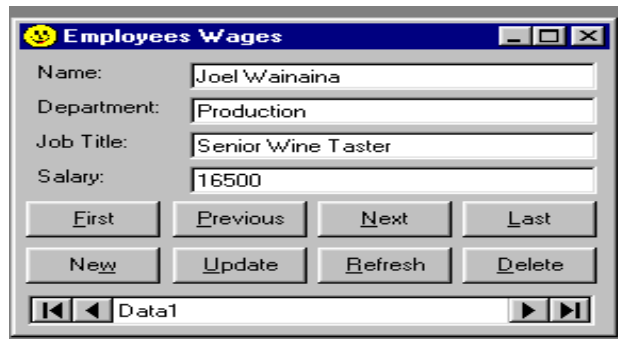
- iv) Delete all the country names in the list box when the command button captioned “Delete” is clicked. (1 mark)
- v) Close the form when one clicks “Close” command button. (1 mark)
- vi) Hide the form. (1 mark)
- b) Using examples, explain the significance of the following functions as used in VB.
 - i) Rnd
 - ii) RGB
 - iii) Val (6 marks)
- c) Write at most one line of code to do each of the following: -
 - i) Maximize a form called frmClass.
 - ii) Unhide a command button called cmdCalculate.
 - iii) Make the text in a textbox called txtName bold. (3 marks)

Question 3

- a) Explaining how each works, discuss the two properties a VB programmer can use to prevent the end user from changing the data displayed in a textbox. (4 marks)
- b) Differentiate between the following: -
 - i) Name and Caption.
 - ii) Implicit and Explicit declaration.
 - iii) Textbox and Label controls. (4 marks)
- c) Briefly, describe the three types of code modules that Visual Basic supports (6 Marks)
 - Form Modules
 - Standard Modules
 - Class Modules
- d) i) Explain what you understand by the term ActiveX control (2 Marks)
- ii) Outline the steps you would follow to add an ActiveX control in the toolbox (4 Marks)

Question 4

Study the GUI below and answer the questions that follow.



The program has the following controls: -

- The data control is linked to a table called **tblWages**, which is in a database called **Expenses.mdb**, which is saved in a folder called **Kenya** in **C:**
- Four text boxes to display **Name**, **Department**, **Job Title** and **Salary**. This information is derived from the fields **[Employee Name]**, **[Department]**, **[Position]** and **[Wage]** respectively.
- Eight command buttons to navigate through the database records.

a) State the values of each of the following properties of the data object: -

- i) DatabaseName (2 marks)
- ii) RecordSource. (2 marks)

b) State the values for each of the following properties for four bound text boxes: -

- i) DataSource (2 marks)
- ii) DataField (2 marks)

c) Write code that should be tied to each of the following command buttons:-

- i) Previous – To move to the previous record. (2 marks)
- ii) Next – To move to the next record. (2 marks)
- iii) Update – To update the database. (2 marks)
- iv) New – To add new records. (2 marks)
- v) Refresh – To refresh records. (1 mark)
- vi) Delete – To delete records. (3 marks)

Question 5

a) Explain how you would come up with the following menu: -

<u>F</u> ile	<u>W</u> indow
<u>N</u> ew	<u>C</u> ascade
<u>O</u> pen	<u>T</u> ile
<u>E</u> xit	

Use the table below: -

Menu	Name	Caption	Indent Times

NB: There is a separator bar between Open and Exit submenus. (7 marks)

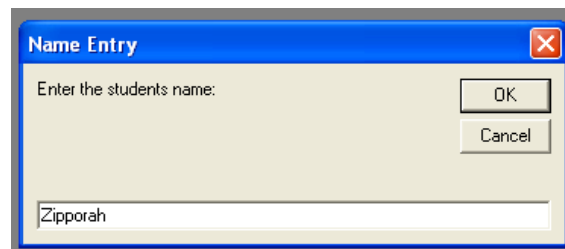
b) Write code to be attached to the following menus: -

i) Cascade. (2 marks)

ii) New. (Creates a new instance of frmStudents.) (3 marks)

c) Write code such that when the user Right clicks on the form containing the above menus, he sees the submenus of File. (4 marks)

d) Write code to produce the following dialog box. (4 marks)



NB: Zipporah is the default name.

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