

PAN AFRICA CHRISTIAN UNIVERSITY

DIPLOMA IN INFORMATION AND COMMUNICATION TECHNOLOGY

END OF SEMESTER EXAMINATION

DEPARTMENT: COMPUTING AND INFORMATION TECHNOLOGY

COURSE CODE: DICT0131

COURSE TITLE: EVENT DRIVEN PROGRAMMING

CAMPUS: ROYSAMBU

EXAM DATE: THURSDAY, XXXX AUGUST, 2024

TIME: 8:00AM-11:00AM

INSTRUCTIONS

- This exam script has **TWO (2)** sections.
- Read all questions carefully before attempting.
- Answer All questions in Section **A** and any other Three questions in Section **B**.
- Write only your **student number** on the answer booklet provided.

SECTION A

(Answer ALL questions in this section)

Question 1:

a) Mary wrote a program and declared each of the following as variable names. Explain, giving a reason, why each could be incorrect.

i. 47@marks

[1 Mark]

ii. integer

[1 Mark]

b) The textbox is used frequently in most of the application. The textbox has property window, with no caption. Explain why this is so.

[2 Marks]

c) With reason, state the most appropriate VB data type for each variable that stores the following values.

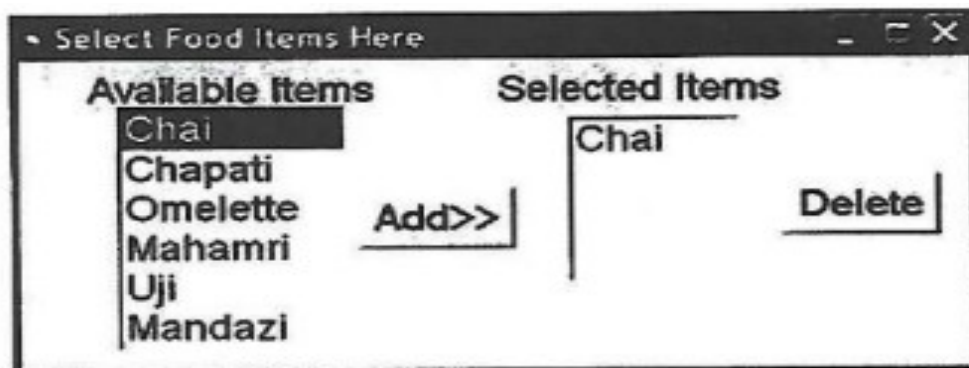
[3 Marks]

i. A student registration number

ii. Amount of money paid as fees by a student

iii. Whether a student is male or female

d) The figure below shows an interface of a hotel system used for selecting food items from the available items. Use it to answer the questions that follow.



Write a Visual Basic program code that allow a user to make selection of any food item from the available items listbox and places it in the selected item listbox. Attach the code to a **Add>>** button.

[3 Marks]

SECTION B

(Answer any THREE (3) questions in this section)

Question 2:

a) Interpret the following Visual Basic program code.

[5 Marks]

```
Dim num1 As Single = Val(txtNum1.Text)  
Dim num2 As Single = Val(txtNum2.Text)  
Dim sum As Single = num1 + num2  
txtSum.Text = sum.ToString
```

b) Write a Visual Basic program that allows a user to enter the string "PAC" and "123456" into respective text boxes in a login screen. If the two are valid, a form named *frmMainPage* is opened, otherwise a message "Invalid name or Password" is displayed on a message box. Attach the code to a *btnLogin* button.

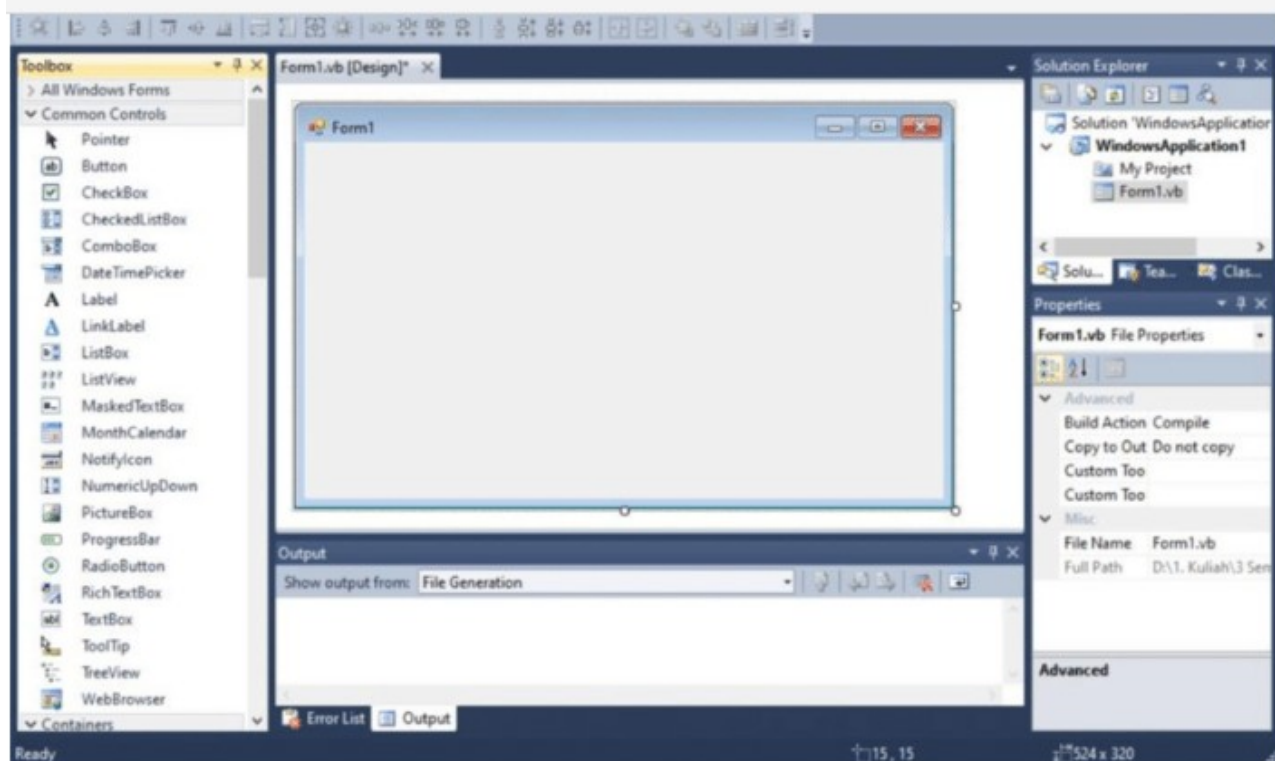
[5 Marks]

Question 3:

a) Write a Visual Basic code to add the following courses; BBIT, BSIT, DICT, and CICT in a combo box.

[2 Marks]

b) The Screen interface below shows the features of the Visual Basic IDE. Use it to answer the questions that follow.



- i. Justify the type of mode used. **[2 Marks]**
- ii. Explain any three features displayed in the above Visual Basic screen. **[6 Marks]**

Question 4:

- a) Explain two challenges that companies with applications built using Visual Basic 6.0 compiler may have with the changing software technology. **[4 Marks]**
- b) Use the table below to write a Visual Basic program to input marks attained by a student then output grades in a given course unit. Use *select case* control. Attach the code in a *btnCalculate* button click event. **[6 Marks]**

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Marks	Grade
0-39	E
40-49	D
50-59	C
60-69	B
70-100	A

Question 5:

Write Visual Basic code for each of the radio buttons to calculate the sum, difference, product and quotient of two numbers when the user enters Number 1 and Number 2 in "txtNumber1" and "txtNumber2" respectively. The product is displayed in the "txtResult". Also attach the code in a "Clear" and "close" buttons click event. The form is shown below:

[10 Marks]

Simple Calculator

Calculation

Number 1

Number 2

Result

☒ Addition

☐ Subtraction

☐ Multiplication

☐ Division

Clear Close

Question 6:

a) Write a single statement to accomplish each of the following:

- i. Explicitly declare the variables *c*, *ventor* and *num* to be of type Integer. **[1 Mark]**
- ii. Assign "Hello!" to the label *lblGreeting*. **[1 Mark]**
- iii. Assign the sum *x*, *y* and *z* to the variable *sum*. Assume that each variable is of type integer. **[2 Marks]**
- iv. Assign the product of the integer variables *r*, *i*, *m*, *e* and *s* to the variable *g*. **[2 Marks]**

b) Explain the output of the following program when the button is clicked. **[4 Marks]**

```
Private Sub btnDisplay_Click(...) Handles btnDisplay.Click  
    Dim word1, word2, newWord As String  
    word1 = "memory"
```

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word2 = "feather"

newWord = word1.Substring(2,2) & word2.Substring(3,4)

If newWord.Length > 3 Then

txtBox.Text = newWord

Else

txtBox.Text = "Sorry, not found."

End If

End Sub

EOF