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15 OCT 2005
Eastern University, Sri Lanka

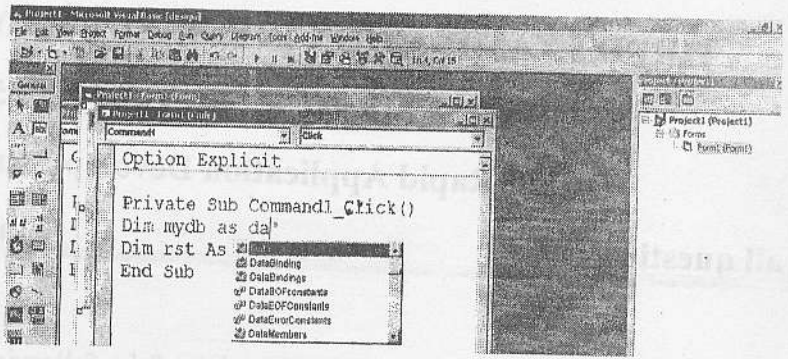
EASTERN UNIVERSITY, SRI LANKA
THIRD EXAMINATION IN SCIENCE - 2003/2004
SECOND SEMESTER (June -July 2005)
OC305 Rapid Application Development

Answer all questions

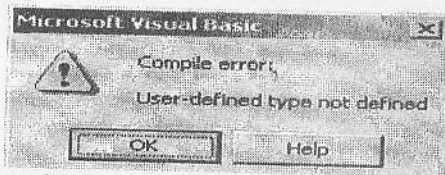
Time Allowed: 2 Hours

- Q1.
- i. What would be the output type and the output value of the following function?
`Instr("University of Colombo", "i")`
 - ii. Consider the following declaration:
`Dim A1, A2, A3`
What is the data type of A1?
 - iii. What would be the value of "mystr" after executing the following two lines?
`mystr = "my world"`
`mystr =Left (LTrim(mystr), Len(Mid(mystr, 3, Len(mystr)-3)))`
 - iv. What would be the output after executing the following code segment:
`Dim intCounter As Integer`
`Do While intCounter >= 10`
`frmOutputForm.Print intCounter`
`intCounter = intCounter + 2`
`Loop`
 - v. Consider the following declaration, initialization and three statements respectively:
`Dim MyTime`
`MyTime = #17:04:23#`
(i) `MyStr=Format(MyTime,"h:m:s")` ' Returns "17:4:23".
(ii) `MyStr= Format(MyTime,"h:m:s")` ' Returns "05:4:23".
(iii) `MyStr= Format(MyTime"hh:mm:ss AMPM")` 'Returns"05:04:23 PM".
Which of the above statement(s) is/are correct?
 - vi. What will be displayed in the message box as a result of executing the following fragment of code?
`Dim X, Y`
`X = 2 - 1`
`Y = 1 + 1`
`MsgBox X & Y`

vii. Consider the following screen:



The above screen is captured when mydb variable has been declared as the database object DAO s. In the combo box above, database does not appear. When compiled, the following error is also generated:



Identify the problem and describe in steps, as to what should be done to rectify it.

Q2.

i. Write down code for each of the following declarations:

- One wants to declare a fixed array with 20 elements with a starting index of zero given that data type is integer.
- One wants to declare a fixed array of integer type where the starting index is 20 and the upper bound of the array is 25.
- Declare a Multi-dimensional array of fixed type with 2 dimensions. The upper bound of the first dimension is 20, the lower bound of the second dimension is 10 and the upper bound of the second dimension is 35.

(Variable name is x for this part)

ii. A form contains two objects (a text box and a command button). The text box doesn't have initial text value. The following lines of code have been written under the command button click event.

```
Dim intArray(12) As String 'line 1
Dim intCounter As Integer 'line 2
For intCounter = 0 To 11 'line 3
    intArray(intCounter) = intCounter 'line 4
Next intCounter 'line 5
For intCounter = 0 To 11 'line 6
    txtout.Text = txtout.Text & intArray(intCounter) 'line 7
Next intCounter 'line 8
```

Note: txtOut is the text box name.

What will be the output displayed in the text box, when one clicks the command button?

Consider the following code. Assume that Form1 has a command button called Command1.

```
Private Sub Command1_Click ()
    Dim index As Integer
    For index = 1 To 5
        Call Test (index, 5)
    Next
End Sub

Private Sub Test(x As Integer, y As Integer)
    Static Temp As Integer
    Temp = Temp + x + y
    Form1.Print (Temp)
End Sub
```



What would be the output if Form1 is loaded and then Command1 is clicked once?

Consider the following program segment:

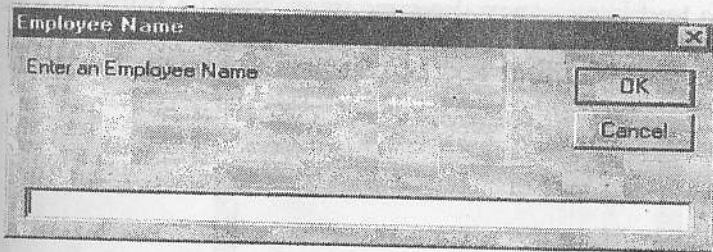
```
Option Explicit
Private Sub Command1_Click ()
    Dim intNum1, intNum2, intSum As Integer
    intNum1 = 5
    intNum2 = 10
    Form2.Show
    Form2.Print Sum (intNum1, intNum2)
    Form2.Print Sum (intNum1, intNum2)
End Sub
```

```
Public Function Sum(ByVal intA As Integer, ByVal intB As Integer)
    As Integer
    Static intC As Integer
    intC = intA + intB + intC
    Sum = intC
End Function
```

What would be the output of the above program?

v. In an application containing two forms *frmMain* and *frmFirst*, as a user clicks the command button in the *frmMain*, *frmFirst* opens with background colour changed from grey to red. Write the required code segment in command button click subroutine to accomplish the given task.

vi. Write the required statement to generate this dialog box?



vii. Consider the following event procedure for command button cmdAction:

```
Private Sub cmdAction_Click()
    Me.Height = Me.Height + 100
End Sub
```

What would be the consequence of clicking on the command button cmdAction?

Q3.

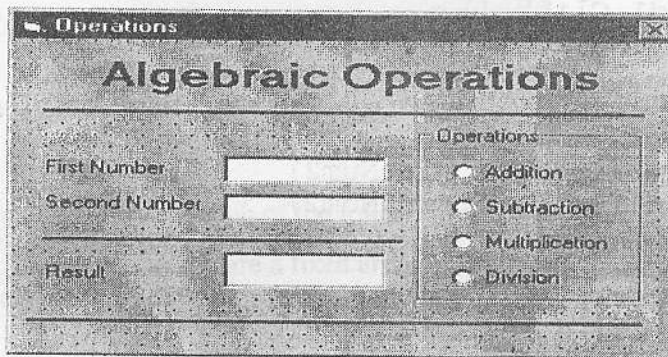
a) **Reigning Cats and Dogs Pet Clinic** provides the following services for the charges as listed:

- Grooming - \$20
- Vaccinations - \$25
- Dentistry - \$30
- X-rays - \$40
- Heartworm medication - \$20

To help Reigning Cats and Dogs Pet Clinic to develop a software

- ✓ Draw an interface to display basic services and the total charges for those selected.
- ✓ Write visual basic code to implement your interface.

b) Consider the following form designed to do algebraic operations



Here are the names of the controls (the three left labels and the horizontal lines are provided "as is"):

(Name)	Caption	(Name)	Caption
frmOperations	Operations	fraOperations	Operations
lblMainTitle	Algebraic Operations	optAddition	Addition
txtNumber1		optSubtraction	Subtraction
txtNumber2		optMultiplication	Multiplication
txtResult	Result	optDivision	Division

Implement the Click event of the option buttons in the interface.

Note: check the content of those text boxes to make sure user typed a number, and a number other than 0, in the Second Number text box, especially in click event of the Division option button.

Consider the following form and corresponding code

```
Private Sub AddButton_Click()
    Call ItemList.AddItem(TextItem.Text)
End Sub

Private Sub DeleteButton_Click()
    Call ItemList.RemoveItem(ItemList.ListIndex)
End Sub
```

What could go wrong here in Delete if none of the item is selected? In order to avoid this modify the required command button click event subroutine.

In database access in MS Visual Basic 6, DAO, RDO and ADO play a major role. Define DAO, RDO and ADO.

The following form contains a list box and a command button as shown below. Add the code to the command button's Click event to populate the list box with the names in the Publishers table.

Database: C:\EUSL\Lib.mdb

Table : Publishers

Table Fields
Name
Address
DateOfBirth