

Menoufiya University
 Faculty of Engineering, Shebin El-Kom
 Production and Mechanical Engineering Department
 First Semester Examination ,2013-2014
 Date of Exam : 23 /1 / 2014



Subject: Computer Application(2)
 Code : PRE313
 Year : Third Year
 Time Allowed : Three hours
 Total Marks : 60 marks

Answer the following three questions:

(Q.1) [20 marks]:

Write the following ten statements in the answer paper and read it carefully. Then, write (√) only beside each correct statement or write (X) if the statement contains any mistake and make circles around mistakes and correct these mistakes over the circle of each mistake:-

- 1) In Visual-Basic(VB), the function Long(B.Text) can count number of characters in TextBox "A".
- 2) In (VB), [IF y>1 Then x=0] is a simplest form of IF-Statement where no need for writing End If.
- 3) Statement [Time.Interval=1] changes Timer (D) interval to be equal to (1) second, "in VB".
- 4) In (VB), statement [Dim Z as Byte] uses to declare an integer variable which greater than (32000).
- 5) The property (Name) of TextBox can't be changed through running a program with (VB) compiler.
- 6) In (VB), statement [option base.EQ.0] uses to make the first index of any matrix is (1).
- 7) You can adjust property [Right To Left] at (True) for TextBox to write arabic characters inside it.
- 8) The function [MsgBox "ALI"] can be used in (VB) to show the word "Ali" in a certain TextBox.
- 9) In (VB), statement [L =M *3/4^1/2] calculates side length (L) of equilateral triangle of area (M).
- 10) Statements [For J=1 to 4:Sum= J^1/2:Next J: TextB.text=Sum] shows "13" in TextBox "TextB".

(Q.2) [20 marks]: A student wrote a program using (VB) for computing the radius (R) of the circle which has an area (A). The user of this program must enter the value of area (A) in the Textbox "areac" under a condition that the value of entered area (A) must be less than 90 cm² and at same time the value (A) must be greater than 25 cm². Then, user can press command button (cmdca) for computing and showing value of radius (R) of circle in textbox "radius". Code of program of command button (cmdca) is shown beside this question but it contains some mistakes. Write this code "as it is" in the answer paper and draw a circles around these mistakes, then write corrections of the mistakes under these mistakes.

Program Code

```
Private Sub cmdca_Click()
Dim pi, area, r As Signal
pi = 22 \ 7 : area = areac.Txtet
If area < 90 OR area > 25 Then
r = (pi/area) ^ (1 / 2
r = radius.Text
End Else
If area > 90 And area <= 25 Then
radus.Text = "Data out of range"
End If
End Sub
```

(Q.3) [20 marks]:

An engineering student write a program using (Visual-Basic) for calculating and showing the number (F) which can be calculated according to the input values (x & y) by the following equation:

$$F = \begin{cases} 4y^4 + \sqrt{1+3x} & \text{if } x > 0 \\ 2x + y & \text{if } x \leq 0 \text{ \& \text{if } } y \leq 0 \\ \sqrt[3]{4y-5x} & \text{if } x \leq 0 \text{ \& \text{if } } y > 0 \end{cases}$$

where (F) will calculated only after entering value (x) in TextBox of name (txt1) and value (y) in TextBox of name (txt2) and testing entered values (x & y) such that both (x & y) are correctly entered as numbers without mixing with any other characters. Draw the flow Chart of program and write the code of it.

With our best wishes (Dr/Mohamed Allam) & DR/Khaled Khader

This exam measures the following ILOs												
Question Number	Q1-1.2	Q1-3.4	Q1-5.6.7	Q1-8.9.10	Q2			Q2		Q3		-----
Skills	a1-1	a15-1	a15-2	a19-1	b1-1	b16-1	b17-1	c6-1	c6-2	c13-1	c14-1	-----
	Knowledge & Understand Skills				Intellectual Skills			Professional Skills				General