Menoufiya University Faculty of Engineering, Shebin El-Kom Production Engineering and Mechanical Design Department First Semester Examination,2014-2015	Subject: Computer Application (2) Code: PRE313 / Year :Third Year Time Allowed : three hours Total Marks : 60 marks Date of Exam : 12 / 1 / 2015

Solve the following three questions [Note: marks of (Q.1), (Q.2),(Q.3) are "20,15,25" marks respectively]

(Q.1): Read the following ten statements and write (√) only beside number of each correct statement in the answer paper or write only (X) beside statement number if statement contains any mistake:-

1) Statement { IF (*R*.GT.*F*) *Z*=3 } is simplest form of IF-Statement where no need for writing End If.
2) The name of TextBox (Tx1) can be changed through running the program of Visual-Basic.
3) If a code in V.Basic includes statement { For j=1 to 3 } then statement { continue j } must exists also.
4) You can declare the integer variable (inZ) using the statement { Dim inZ As Long }, in Visual-Basic.
5) In Visual-Basic, statement { Opt2.Value=True } means that Option Button (opt2) is selected.
6) In V.Basic 6, { Dim L As Integer } can be declare an integer variable (L) which greater than (3200000).
7) { H =(4*A /(3)^0.5)^0.5 } can calculate side (H) of equilateral triangle of area (Ar), in V.B, statement.
8) In Visual-Basic, writing statement { Option base Explicit 1 } will make first index of any matrix is (1).
9) Statement { I =0 :For J = 1 To 4 :I = 2 * I + (J - 1) * J ^ 2: Next J } leads to be (I) equal to (100), in V.B
10) In V.B, you can declare the integer variables of matrix (M) using statement { Dim M(3,4) As Long }.

(Q.2): A program designed using V.Basic where user can entered area of circle (area<50 cm^2) in TextBox (Tx1) and select (Op1) or (Op2) then pressing (Command1) for approximating radius (L) of circle to nearest integer and show area of equilateral triangle of side (L) or showing value (L^10) The code of this program 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 the mistakes, then write corrections of mistakes over these mistakes.

Visual-Basic-6 Incorrect Code

```
Dim L As Byte: Dim y As Integer : Dim area As Douple
Private Sub Command1_Click()
If Tx1.Text > 0  OR  Tx1.Text < 50 Then
L = (Tx1.Text / (22 / 7)) ^ 0.5
If Op1.Value = True Then : area = (((4) ^ 0.5) / 3) * L ^ 2
End If
If Op2.Value = True Then  y = L ^ 10
If Op1.Value = True Then  Tx2.Txt = y
If Op2.Checked = True Then  Tx2.Text = area
End If
Not If  Tx1.Text < 50 Then Tx2.Text = [Out of range]
End Sub
```

(Q.3): A student designed a program using V.Basic where user of this program can select any one of three Option Buttons in form, first one (Opt1) for drawing triangle of sides lengths (60,70 &100) in cm and showing its area. The second one (Opt2) for drawing a square frame of length side (900) and third one (Opt3) for rotating line(L) of length (990) around point (800,800) with three quarter of cycle of rotation;

a) Draw flow Chart of this program...(5 marks)
b) Write Option Button (Opt1) code..(10 marks)
c) The code dealing with (Opt2) & (Opt3) and (timer1) are shown beside this question but it contains some mistakes. Write these codes "as it is" in the answer paper and draw a circles around the mistakes, then write corrections of mistakes over these mistakes. ..... (10 marks)

V.B-6 Incorrect Code dealing with (Opt2) & (Opt3)

```
Dim xb(270) , yb(270) As Single: Dim I  As Byte
Private Sub Opt2_Click()
Lin (10, 50)-(910, 50)  :  Line (910, 50 -910, 950)
Line (10, 50)-(10, 950)  &  Line (10, 950)-(910, 950)
End Sub
Private Sub Opt3_Click()
For I = 1  To  270  Steb=1
xb(I) = 990 * Cosine((I + 1) * (22 / 7) / 180)
yb(I) = -5 * 990 * Sin((I + 1) * 180 / (22 / 7))
Next I  :  I = 0  :  Timer.Enabled = True
End Sub
Private Sub Timer1_Timer()
L1.X1 = 800  :  L1.Y1 = 800  :  L1.X2 = 800 + xb
L1.X2 = 800 + yb(I)  :  I = 1 - I
If  I >= 270  Then  Timer1.Enabled = Ture
End Sub
```

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

This exam contributes "by measuring" in achieving Programme Academic Standards according to NARS											
Question Number	Q1,1&2&3&4&5&6		Q1,10	Q1,7&8&9	Q2-b	Q2-b	Q3-b	Q2-a	Q3-b	Q3-a	Q3-c
Skills	a1-1	a15-1	a15-2	a19-1	b1-1	b16-1	b17-1	c6-1	c6-2	c13-1	c14-1
	Knowledge & Understanding Skills				Intellectual Skills			Professional Skills			