



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) In V.B, function len(Text1.text) can separate only numeric numbers of contents of TextBox (Text1).
- 2) In Visual Basic, the statement `Dim N(2,2) As Byte` declares a huge integer variables of matrix (N).
- 3) You can declare a real variable (sgZ) using the statement `Dim sgZ As Single`, in Visual-Basic.
- 4) Statement `i = 0: For J = 3 To 7: i = 3 * i + (J - 2) ^ 2: Next J` leads to be value (i) equal (342) in V.B.
- 5) If a code in V.B. includes line `Private Sub ar(x As Single)` then code must include `End Function`.
- 6) `Ar = ((3/2)*(3)^0.5)*L^2` can calculate area (Ar) of equilateral hexagon of side length (L) in V.B.
- 7) In Visual-Basic, statement `y=acos(30*180/3.14)` calculates the value of "y" (where $y = \cos^{-1} 30^\circ$).
- 8) `IF (X.EQ.Y) Z=5` is simplest form of IF-Statement in V.B. where no need for writing End If.
- 9) Any program starts loop by statement `For J=3 to 8` must close this loop by `Next J` in V.B.
- 10) Adjust property (Top) at (True) of TextBox to allow the user for writing any character inside it.

(Q.2): A program designed using (Visual-Basic) for computing the sum of six areas of six faces (A) of cube of the length of its side is (L). The user of this program must enter the value of the side (L) in the textbox (txtL) under the condition that the value of (L) must less than 100 cm and at the same time the value of (L) must greater than 20 cm. Then user can press the command button (calc) for computing and showing value of total areas (A) in TextBox (area).

- a) Draw flow Chart of this program. ... (5 marks)
- b) 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 these mistakes, then write corrections of mistakes above these mistakes. (10 marks)

Visual-Basic Incorrect Code

```
Option Basic
Dim a , areac As Double
Private Sub calc_Click()
txtL.Txt=a
If a < 100 Or a > 20 Then
areac = 6 (a ** 2)
area.Text = areac
End
If a >= 100 AND a <= 20 Thn
MsgBox ="Data out of range"
End If
Sub End
```

(Q.3): A student designed a program using V.B. for computing and showing the side length (L) of equilateral hexagon in TextBox of name (tL) when the user of program enter the area (ar) of this hexagon in TextBox of name (txtar) and user enter the number "1" in TextBox of name (txtch) and pressing CommandBoutton (CmdCalc). While, showing (L) of equilateral pentagon in (tL) through entering area (ar) of pentagon in (txtar) and number "2" in (txtch).

- c) Draw flow Chart of this program... (5 marks).
- d) 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 these mistakes, then write corrections of mistakes above these mistakes. (20 marks)

Visual-Basic-6 Incorrect Code

```
Option Explicit : Dim L As Long
Private Sub CmdCalc_Click()
If txtch =(1) Then arhex txtar.Text
If txtch "2" Then arpent=txtar.Text
End Sub
Private Sub arhex(a As Single)
If a < 85 And a > 25 Then
L = ((3 / 2) * a * (1 / 3 ^ 0.5)) ^ 0.5 : tL.Text = L
End If
If a >= 85 And a <= 25 Then tL.Text = "Data out"
End IF
Private Sub arpent(b As Single)
If b < 85 OR b > 25 Then
L = (0.8 * b * (1 / Tan(54 * 75.3))) ^ 0.5: tL.Text = L
End If
If b >= 85 Or b < 25 Then tL.Text = "Data out "
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-b	
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			