

**UNIVERSITY COLLEGE TATI (UC TATI)****FINAL EXAMINATION QUESTION BOOKLET**

COURSE CODE	: BCS2123
COURSE	: VISUAL PROGRAMMING
SEMESTER/SESSION	: 1 / 2022-2023
DURATION	: 3 HOURS

Instructions:

1. This booklet contains 5 questions. Answer **ALL** questions.
2. All answers should be written in the answer booklet.
3. Write legibly and draw sketches wherever required.
4. If in doubt, raise your hands and ask the invigilator.

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO

THIS BOOKLET CONTAINS 9 PRINTED PAGES INCLUDING THE COVER

QUESTION 1

a) Describe **FIVE (5)** controls in Figure 1.

(20 marks)

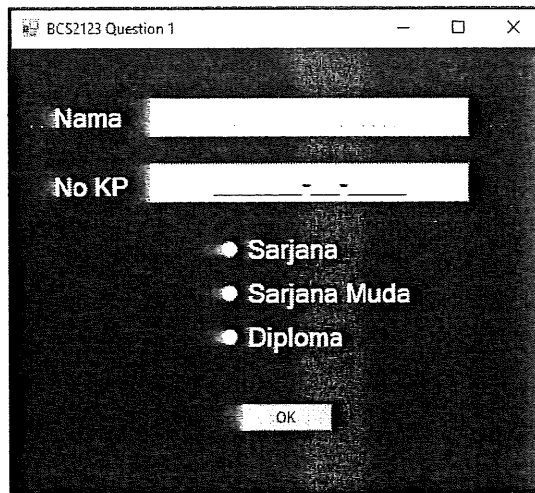


Figure 1

b) List **FIVE (5)** common properties for *checkboxes*.

(10 marks)

QUESTION 2

Prepare the correct C# statements for the followings:

- a) Declare IPT as a string variable and initializing it to "UCTATI". (3 marks)
- b) Declare cgpa as a float variable. (2 marks)
- c) Declare kredit as an integer variable with a value of 121. (3 marks)
- d) Display purata, a decimal variable, in averageTextBox. (3 marks)
- e) Declare GRADUATION_YEAR_INT as a constant variable of the type integer and a value of 2024. (3 marks)

QUESTION 3

- a) Describe **FOUR (4)** relational operators in C#. Support your answer with appropriate example. (16 marks)
- b) Determine the output of **ResultTextbox** for the following C# programs.

i) (3 marks)

```
// aStr is a string variable with the value of "BCSC"
// bStr is a string variable with the value of "BCNS"

if (aStr.CompareTo(bStr)<0)
{
    ResultTextbox.Text = "Sarjana Muda " + aStr;
}
else if (aStr.CompareTo(bStr)>0)
{
    ResultTextbox.Text = "Diploma " + bStr;
}
else if (aStr.CompareTo(bStr)==0)
{
    ResultTextbox.Text = "Asasi" + aStr + bStr;
}
else
{
    ResultTextbox.Text = "Ralat Input";
}
```

Figure 2

ii) (3 marks)

```
// daerahRButton is a radio button and is currently checked
// negeriTBox is a radio button and has the value of "Terengganu"

if (daerahRButton.Checked && negeriTBox.Text.ToUpper() !=
    "PAHANG")
{
    ResultTextbox.Text = "Sila Masukkan Daerah Mengundi";
}
else if (daerahRButton.Checked && negeriTBox.Text.ToUpper() ==
    "KELANTAN")
{
    ResultTextbox.Text = "Sila Masukkan Nama Pemohon";
}
else if (daerahRButton.Checked || negeriTBox.Text.ToUpper() ==
    "TERENGGANU")
{
    ResultTextbox.Text = "Sila Masukkan Nama Calon";
}
else
{
    ResultTextbox.Text = "Ralat, Sila Cuba Sekali Lagi";
}
```

Figure 3

iii) // quantityTextBox is a textbox and has the value of "Terengganu" (3 marks)

```
if (quantityTextBox.Text != "")
{
    try
    {
        quantityDecimal = decimal.Parse(quantityTextBox.Text);
        ResultTextbox.Text = "Berjaya Disimpan";
    }
    catch
    {
        messageString = "Format tidak sah";
        ResultTextbox.Text = messageString;
    }
}
else if (quantityTextBox.Text == "Terengganu")
{
    messageString = "Anda Pasti?";
    ResultTextbox.Text = messageString;
}
else
{
    messageString = "Sila masukkan kuantiti";
    ResultTextbox.Text = messageString;
}
```

Figure 4

iv) // cgpaInt is an integer variable with a value of 7 (3 marks)

```
switch(cgpaInt)
{
case 4:
    statusStr = "Cemerlang";
    ResultTextbox.Text = statusStr;
    break;

case 3:
    ResultTextbox.Text = "Baik";
    break;

case 2:
    statusStr = "Sederhana";
    ResultTextbox.Text = statusStr;
    break;

default:
    myStr = "Lemah";
    ResultTextbox.Text = myStr;
    break;
}
```

Figure 5

QUESTION 4

- a) List **ONE (1)** type of methods in C#. (2 marks)
- b) Identify **THREE (3)** errors in the program below by listing the line number and rectifying them. (12 marks)

```
1 private void calculateButton_Click(object sender, EventArgs e)
2 {
3     decimal jumlahDecimal;
4     jumlahDecimal = int.Parse(jumlahTextBox.Text);
5     SSTTextBox.Text = diskaun(jumlahDecimal).ToString("C");
6 }
7
8 private void SST (decimal jumlahJualanDecimal)
9 {
10     if (jumlahJualanDecimal < 500M)
11     {
12         return 0M;
13     }
14     else if (jumlahJualanDecimal <= 1000M)
15     {
16         return 0.01M * jumlahJualanDecimal;
17     }
18     default
19     {
20         return 0.02M * jumlahJualanDecimal;
21     }
22 }
```

Figure 6

QUESTION 5

- a) List **THREE (3)** parts of the **for** loop in C#. Support your answer with program example. (8 marks)
- b) Describe the **while** loop in C#. Support your answer with program example. (6 marks)

----- End of Question -----

