BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF SCIENCE AND ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE

BSc HONS DEGREE IN SOFTWARE ENGINEERING

SWE112: VISUAL DESIGN CONCEPTS AND DEVELOPMENT

DURATION: 3 HOURS   TOTAL MARKS: 100

INSTRUCTIONS TO CANDIDATES:
The paper consists of Section A (Theory) and Section B (Practical)
Answer **ALL** questions

JUN 2023

SECTION A (40 MARKS)

Question 1

a. In your own understanding explain execution of any .NET based application program.   **[5]**
b. The System.IO namespace has various classes that are used for performing various operations with files, like creating and deleting files, reading from or writing to a file, closing a file, etc. Complete the table 1 by filling in missing descriptions.   **[5]**

Table 1. File commands

I/O Class	Description
BinaryReader	
BufferedStream	
FileStream	
StreamReader	
StreamWriter	

c. Compare and contrast Dataset and DataReader object.   **[6]**
d. Explain the Dot Net framework.   **[4]**

Question 2

a. Draw the output of the following string manipulation functions given that the value in the variable txtstring is **VBDotNet**   **[6]**

```
Dim strResults As String
strResults = txtString.Text
MessageBox.Show(strResults, "Strings")
MessageBox.Show(strResults.Substring(0, 3), "Strings")
```

```
MessageBox.Show(strResults.Substring(3, 3), "Strings")
MessageBox.Show(strResults.Substring(strResults.Length - 3), "Strings")
```

b. Using vb.net how do you copy or retrieve items to and from the clipboard?
[5]

c. Assess the notion that:
   "Most developers are now building applications using the .Net framework"
[9]

SECTION B: Practical (60 MARKS)

Create a folder on the desktop and name it using your registration number and course code. Save all you work in this folder.

Question 3

Write a program that allows the user to swiftly convert any given amount of money from one currency to another using the table. 2 and figure. 1 as guideline.   [20]
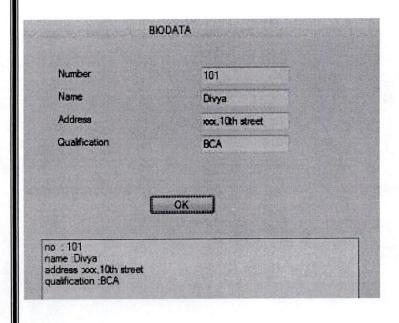
Table 2. Exchange rate table

Currency	Rate against US$1.0
Pula	12.0
RTGS	900.0
Rand	17.3
Kwacha	11.98

Figure 1. Exchange rate form

Question 4

Figure 2 shows form controls used to capture biodata. Your task is to make it functional such that after entering all the biodata the user must click ok button and all the biodata must be posted on the listbox. Include some validation on your textboxes so that the number textbox must not allow anything that is not a number and the rest of the textboxes must not allow numbers. [20]

Question 5

Code a vb.net application to create a structure called Employee with the following fields and appropriate data types: EmpName, EmpDesignation, EmpCity, EmpSalary and EmpID. In the sub main create an instance variable called Emp of type Employee and use it to assign the values to the fields created using table 3. specifications. Finally display the record on the console screen. **[20]**

Table 3. Employee table

EmpName	EmpDesignation	EmpCity	EmpSalary	EmpID
Muti	Systems Analyst	Mutare	4000	2097

************END OF PAPER***************