Software Programming - Model Paper
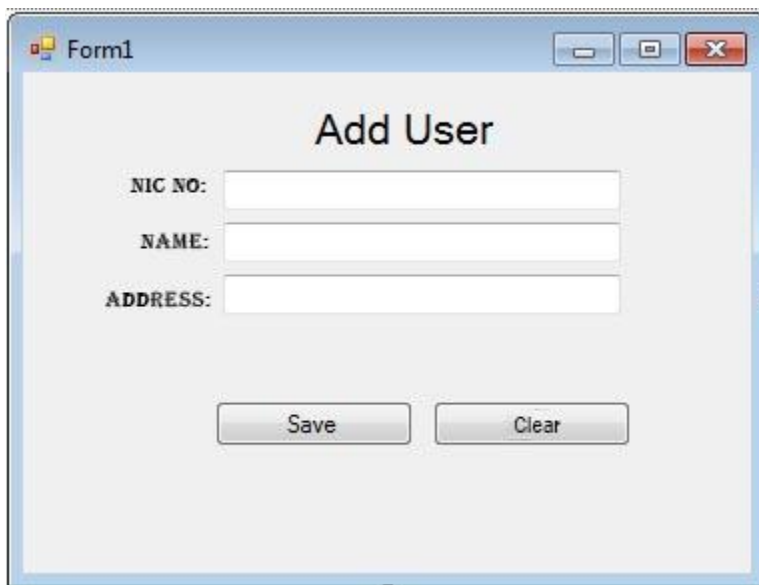
Answer only 04 questions (**Question 01 is COMPULSORY**).

Question 01   **(40 Marks)**

1) Write a program to display the total and the maximum number of the following list of numbers.
   Numbers: 1.9, 2.9, 3.4, 3.5
2) The following interface use to Add users into the human resources management system of Colombo Pay Company.

a.) Write a code segment for connecting application with the `User_info` table.

b.) Write a code segment when click the "Save" button, all the information should save into "User_info" table.

c.) Write the code segment validates the information as follows.

   a. All the fields must be filled
   b. "NIC No" allowed only numbers

d.) When click the "Clear" button, all the information should be empty.

Question 02 (20 Marks)

1) Briefly explain following two methods with example.

    a. Method Overloading

    b. Method Overriding

2) Explain difference between variables and constants with suitable examples

3) Write an algorithm to check whether a number entered by user is a primary or not

Question 03 (20 Marks)

1.) Briefly explain the term "Variable" and give example for three (03) different types of variables.

2.) Discussed the advantages and disadvantages of Graphical User Interface (GUI) that is use of software development

3.) Write a program to display the following pattern with symbols.

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Question 04 (20 Marks)

1.) Briefly explain difference between while and do while loop with suitable example.

2.) Why we used break and continue statements? Explain with suitable examples.

3.) Explain Encapsulation and Inheritance with suitable examples.

Question 05 **(20 Marks)**

1.) What is an exception? Explain exception handling with an example.

2.) Is the following code legal? Explain answer.
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try {

}
finally {

}
```

3.) What is the importance of finally block in exception handling?

Question 06 **(20 Marks)**

1.) What is a dialog box? Give an example.

2.) Describe usage of ADO.NET?

3.) What is a Datatable?