1. Why is C# called "C sharp"?
The name "C sharp" was inspired from musical notation
where a sharp indicates that the written note should
be made a half-step higher in pitch.
This is similar to the language name of C++,
where "++" indicates that a variable should be incremented by 1.
The sharp symbol also resembles a ligature of four "+"
symbols (in a two-by-two grid), further implying that the
language is an increment of C++.

2. Who is the lead architect of C#?
Anders Hejlsberg.

3. Name some characteristics of C#?
Some characteristics of C# are:
Simple
Type safe
Flexible
Object oriented
Compatible
Consistent
Interoperable
Modern

4. Write the steps and code for a "Hello World" C# WinForm application
To write the code for your application
Double-click the button to add an event handler for the Button1 Click event.
The Code Editor will open with the insertion point placed within the event handler.
// C#
MessageBox.Show("Hello, World!");

5. Write steps to test your application
Press F5 to run the application.
When your application is running, click the button and verify that "Hello, World!"
is shown. Close the Windows Form to return to Visual Studio.

6. What are C# data types and name three common data types
Data types are used everywhere in a programming language like C#.
Because it's a strongly typed language, you are required to inform
the compiler about which data types you wish to use every time you
declare a variable, as you will see in the chapter about variables.
In this chapter we will take a look at some of the most used data types
and how they work.

bool is one of the simplest data types. It can contain only 2 values - false or true.
The bool type is important to
understand when using logical operators like the if statement.

int is short for integer, a data type for storing numbers without decimals.
When working with numbers, int is the most commonly used data type.
Integers have several data types within C#, depending on the size of the
number they are supposed to store.

string is used for storing text, that is,
a number of chars. In C#, strings are immutable,
which means that strings are never changed after
they have been created. When using methods which
changes a string, the actual string is not changed -
a new string is returned instead.
char is used for storing a single character.

float is one of the data types used to store numbers which
may or may not contain decimals.

7. What are the types of comment in C#?
There are 3 types of comments in C#.
Single line (//)
Multi (/* */)
Page/XML Comments (///).

8. What are the basic concepts of object oriented programming?
It is necessary to understand some of the concepts used extensively in object oriented programming.
These include:
Objects

Classes
Data abstraction and encapsulation
Inheritance
Polymorphism
Dynamic Binding
Message passing.

9. What is the code to open a second form?

```
private void button_Click(Object sender, EventArgs e)
{
    // create a new instance of the Form2 class
    Form2 myForm = new Form2();

    // show the setting form
    myForm.Show();
}
```

10. Write the steps to set which of the forms appear first?
In Program.cs
Application.Run(new Form1())

11. What is IO in System.IO;?
Input Output

12. What class is used to read a file in C#?
StreamReader class

13. Name some usages of the "this" keyword in C#?
To qualify members hidden by similar name
To have an object pass itself as a parameter to other methods
To have an object return itself from a method
To declare indexers
To declare extension methods
To pass parameters between constructors
To internally reassign value type (struct) value.
To invoke an extension method on the current instance
To cast itself to another type
To chain constructors defined in the same class

14. On this sheet, what line number is the word set?
line number 19

This keyword
Depending on where you r using it ,it has different meanings:-
1.Reference to current instance of class
2.Call another constructor from a constructor in same class.
3.Declare indexer
Below example covers above 3

```
class abc
{
string x; //class member
public abc(string x)
{
//referring to current instance
this.x=x;//("this.x" refers to class member)
}
//calling another constructor
public abc():this("xyz")//calls abc(string x) before abc()
{
}
//declaring an indexer
public int this[int index]
{
get{return x[index];}
set{x[index]=value;}
}
```

4.also used in Extension methods