Unit-2: C# Language Basics
Short Questions [1 Mark]

1.	How can you declare variables in C#?
2.	What is the use of "object" data type in C#.NET?
3.	List at least six value types in C#.
4.	What is Event-Driven Programming?
5.	What is Event Handler?
6.	How can you declare main() in C sharp?
7.	List out two different types of errors in C#.
8.	What are fatal errors?
9.	Which type of mistake can causes a program to stop unexpectedly during execution?
10.	What Error Hander handles? or What is Error handling?
11.	Define the term "Exception".
12.	How the exception handling is done in C#?
13.	Can we have only "try" block without "catch" block in C#?
14.	Why to use "finally" block in C#?
15.	How can you set breakpoint in a C sharp program?

Short Questions [2 Marks]

1.	Explain the implicit variable declaration in brief.
2.	Is there any special datatype for storing Date in Visual Studio? If yes, which is it? What is the size of it?
3.	What is Boxing and Unboxing? or Give the difference between Boxing and Unboxing.
4.	Which operator is used to concatenate two strings? Give proper example. or How can we combine text strings? Give example.

5.	What is the usage of Bitwise operator?
6.	What is ternary operator? Give one proper example.
7.	Give the namespace of Math Methods in .NET. List out five Math methods of .NET framework.
8.	What is the difference between "continue" and "break" statements in C#?
9.	Differentiate "constant" and "readonly" variables in C#.
10.	Give an example for do and while loops to execute code while a Boolean expression evaluates to true.
11.	What is the different between Convert.ToInt16(), Convert.ToInt32() and Convert.ToInt64()?
12.	What is enum in C#?
13.	How can you pass the parameter by reference and value in C#? or What is the difference between "out" and "ref" parameters in C#?
14.	Explain Overloading in C#.
15.	What is Function Overloading in C#.net? or What is method overloading?
16.	Which string method is used for concatenation of two strings in C#? Give one example of it.
17.	How can you declare and initialized array in C#?
18.	What is the difference between methods "System.Array.Clone()" and "System.Array.CopyTo()" in C#?
19.	What is the Difference between Array and ArrayList in C#.Net?
20.	How can you use multidimensional array in C#? Give one proper example of it.
21.	List out at least six exceptions in C#. or List down the commonly used types of exceptions in .Net. or List at least six important exception objects.
22.	Can Multiple Catch Blocks executed in C#? Justify your answer.
23.	Difference between Throw Exception and Throw Clause. or What is the difference between "throw ex" and "throw" methods in C#?

24.	How try_catch error handler provides more complexity?
25.	What are "ArgumentOutOfRangeException" and "IndexOutOfRangeException"?
26.	Which statement is used to raise your own errors?
27.	Explain nested Try_Catch block with example.
28.	What is the difference between "finalize" and "finally" methods in C#?

Scenario based Questions [5 Marks]	
1.	Write a C# code to find the factorial of a given number using function.
2.	Write a C# code to take input from user and check whether the number is prime or not using function.
3.	Write a C shape code to display the Fibonacci series using function.
4.	Write a C# code to create a procedure to check whether the input number is Armstrong number or not.
5.	Write a C# code for a console based application to generate the Marksheet of the student by taking five subjects marks from the user. Calculate and display Total Marks, Percentage and Final Grade. [Note: If the student is failing in single subject, then the grade must be FAIL only.]
6.	Write a C# code to calculate the division of two numbers using try_catch statement. When the user enters a non-numeric values into the textboxes, the error message must be display "One of the entries is not a number! Try again!". If no error occurs, it will display the correct answer.
7.	Write a C# code to get the sum of N numbers. If N value crosses the limit (100000), then exception must occur. Display the proper error message for the exception.

Long Questions [5 Marks]	
1.	Explain if…else decision structure in C# with example.
2.	Describe the use of Logical operators in conditional expressions with example.
3.	Explain switch…case decision structure with proper example.
4.	Discuss foreach loop with an example to display an array elements.
5.	Explain function in C#.NET with proper example.
6.	When you should use Error Handlers? or What are the possible problems for Handling Errors?

7.	Explain Try_Catch block with proper example.
	or
	Explain the Error Trapping Mechanism of Visual Basic.
	or
	Define exception. Explain on structured exception handling.
	or
	What is Exception? Explain structured error handling. How exception can be raised explicitly?
	or
	Explain Exception handling in detail.
	or
	Explain Try...Catch...Finally block with proper example.
8.	How "Finally" clause performs cleanup tasks? Explain with suitable example.