



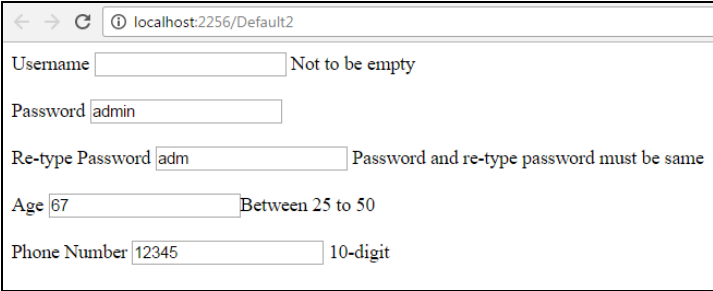
End Semester Examination – Nov/Dec – 2016

Code : 14CS2054
Sub. Name : C# and .NET Programming

Semester : 2016-17 ODD
Duration : 3hrs
Max. marks : 100

ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)

Q. No.	Sub Div.	Questions	Course Outcome	Marks
1.	a.	Define inheritance and write a C# program to illustrate the concept of interface inheritance. <ul style="list-style-type: none"> Define a interface called shape with function members display() and area(). Derive a class called circle, rectangle and square which inherit the shape interface. Calculate the area of the corresponding shapes using area() function. Create the instances of circle, rectangle and square class in main program. Display the area of the corresponding shapes by invoking the appropriate methods. 	C1	14
	b.	With an example, discuss the following keywords of C#: <ul style="list-style-type: none"> Checked Unchecked Sealed 	C1	6
(OR)				
2.	a.	Explain operator overloading in C# with an example to overload the following operators in the Vector class. <ul style="list-style-type: none"> + - * < == int to Vector 	C1	20
3.	a.	Write a C# program to compute and display sum, difference and multiplication of two numbers by writing appropriate methods which could be called through multicast delegates.	C1	15
	b.	Explain how events are interconnected with delegates in C#.	C1	5
(OR)				
4.	a.	Explain Exception Handling Mechanism in C#. Write a C# code to handle the user defined exception for the following scenario. <ul style="list-style-type: none"> Throw an exception if the age entered is less than 18 - InvalidAgeException Throw an exception if the percentage is less than 50 – InvalidPercentageException Throw an exception if the percentage is 50 to 75 – LessPercentageException Throw an exception if the percentage is 50 to 75 – GreaterPercentageException Throw an exception if the string is entered for age - InvalidInputException 	C1	20
5.	a.	What is a jagged array? Explain its use with simple example.	C1	8
	b.	Write a C# code to do the following.	C1	12

		a) Create the custom attributes called author and version. b) Apply and retrieve these attributes using reflection (atleast in three classes)		
(OR)				
6.	a.	Explain looping and control statements in C#.	C1	12
	b.	Explain in detail how the memory is allotted for the value and reference data types with a suitable diagrammatic representation.	C1	8
7.	a.	Design a web page with ASP.NET validation controls and explain its syntax. 	C2	12
	b.	Write short notes on <ul style="list-style-type: none"> ASP.NET server controls and their use. Directives in ASP.NET web page. 	C2	8
(OR)				
8.	a.	Develop an windows form application using ADO.NET with the following requirements: <ul style="list-style-type: none"> A database called “IVCSE” with the table “login” with fields empname (VARCHAR), phoneno (INT) Design a login page. Register for a new employee. Display all the employees using Data Set and Data Adapter. Update the phoneno by giving the empname. 	C2	20
		<u>Compulsory:</u>		
9.	a.	Explain in detail about passing data to threads and handling thread issues using atleast three synchronization mechanisms with appropriate examples.	C1	20

ALL THE BEST