Reg. No. \_\_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov / Dec – 2019**

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| **Code :** | **14CS2054** | **Duration :** | **3hrs** |
| **Sub. Name :** | **C# AND .NET PROGRAMMING** | **Max. Marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Define an abstract class called “Information” with data such as name, regno and an abstract method. Derive a child class, “Subjects” from Information which has attributes, such as subject1 and subject2. Derive a child class, “Student” from Subjects which has attributes, such as mark1, mark2 and a method view() to display the details of the student. Create three student objects and initialize the data members through constructor in C#. Display the details of three students as given below.  Name, Reg\_Num, Subject\_1 : Mark\_1 , Subject\_2 : Mark\_2 | CO1 | 20 |
| **(OR)** | | | | |
| 2. | a. | Write a C# program to create an integer array with size of 25. Populate the array by reading the user inputs through console. Display the integers in the sorted order from the highest to smallest. | CO1 | 10 |
| b. | Describe the various ways of passing arguments to the method with sample C# code. | CO1 | 10 |
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| 3. |  | Consider a Height class with feet and inches as data members that denotes the height of the student. Write a C# program to overload the + and - operators to add and subtract two height instances. | CO1 | 20 |
| **(OR)** | | | | |
| 4. |  | Define delegates and discuss the types of delegates with an example. | CO1 | 20 |
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| 5. |  | Write a C# code to handle the user defined exception for the following scenario.   * A company conducted a recruitment process with the eligibility of “8 CGPA above with no arrear”. If the students are not acquiring the eligibility then handle the following exceptions. * If the CGPA is below 8 then throw a user defined exception called “CGPA\_Shortage\_Exception”. * If the student has arrear then throw the built-in exception called “NullPointerException”. | CO3 | 20 |
| **(OR)** | | | | |
| 6. | a. | Explain the structure of .NET assembly with neat sketch. | CO3 | 8 |
| b. | Discuss the threading concepts in C# with suitable example. | CO3 | 12 |
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| 7. | a. | Design a windows application to add two numbers by getting the input through text boxes and display the result in the label on button click event. | CO2 | 12 |
| b. | Discuss the purpose of Data Set and Data Adapter in ADO.NET disconnected layer. | CO2 | 8 |
| **(OR)** | | | | |
| 8. | a. | Elucidate the various server validation controls in ASP.NET. | CO2 | 10 |
| b. | Examine how does master page differ from the ASP.NET page. | CO2 | 10 |
|  | | **Compulsory**: |  |  |
| 9. |  | Develop a ASP.NET web application to perform the following operations with ADO.NET.   * Connect with the AddressBook database. * Insert a record in the table called AddressDetails with fields such as name, phone and address. * Display the details in a GridView. | CO2 | 20 |