



## P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belgaum)

**Fifth Semester, Master of Computer Applications (MCA)**

**Semester End Examination; Dec - 2016/Jan - 2017**

**Programming Using C# and .Net**

*Time: 3 hrs*

*Max. Marks: 100*

*Note: Answer FIVE full questions, selecting ONE full question from each unit.*

### UNIT - I

- |      |  |    |
|------|--|----|
| 1 a. | Write and explain architecture of .Net framework.                            | 10 |
|      | b. Explain the role of metadata and assemblies in .Net framework.            | 10 |
| 2 a. | With code example explain boxing and un boxing concepts.                     | 10 |
|      | b. Explain ?? Operator, <i>is</i> and <i>as</i> Operators with code example. | 10 |

### UNIT - II

- |      |  |    |
|------|--|----|
| 3 a. | Write a program to illustrate the use of different properties in C#.                             | 10 |
|      | b. List the types of parameters passed to a method in C# and explain any two types with example. | 10 |
| 4 a. | With suitable example explain static classes and static members.                                 | 10 |
|      | b. Explain with code example partial classes and methods in C#.                                  | 10 |

### UNIT - III

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|------|--|----|
| 5 a. | Explain compile time polymorphism and run time polymorphism with code example. | 10 |
|      | b. What is the need of sealed classes and sealed methods?                      | 10 |
| 6 a. | Explain the delegate type in C# with a programming example.                    | 10 |
|      | b. Define the following keywords with program example,                         | 10 |
|      | i) <i>try</i> ii) <i>throw</i> iii) <i>catch</i> iv) <i>finally</i> .          |    |

### UNIT - IV

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|------|--|----|
| 7 a. | Write a note on how to handle mouse event in C# Program.                     | 10 |
|      | b. Explain Label, TextBox and Button controls usage in windows forms.        | 10 |
| 8 a. | Demonstrate the creation of Multiple Document Interface windows forms in C#. | 10 |
|      | b. Explain the usage of ComboBox control in C#.                              | 10 |

### UNIT - V

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|-------|--|----|
| 9 a.  | Write and explain Architecture of ADO.net.                       | 10 |
|       | b. In detail explain Dataset of ADO.net.                         | 10 |
| 10 a. | Explain Validation Control of web application with code example. | 10 |
|       | b. Write steps to retrieve the data from SQL server.             | 10 |