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**Fifth Semester MCA Degree Examination, Dec.2018/Jan.2019**  
**Programming using C# •NET**

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions.**

- 1 a. Explain the components of .Net framework with the help of architecture diagram. (12 Marks)  
b. Explain the iterative statement in C# with examples. (08 Marks)
- 2 a. Explain value type, Reference type and pointer type with respect to C#. (10 Marks)  
b. Briefly explain pre processor directive in C#. (06 Marks)  
c. Describe the significance of is and as operator. (04 Marks)
- 3 a. Explain various method parameters used in C#. (08 Marks)  
b. Write a short notes on : (08 Marks)  
i) Partial classes and methods    ii) Indexers.  
c. Write a program in C# to read a jagged array and display the sum of all the elements of the array. (04 Marks)
- 4 a. How is method overriding is different from method overloading illustrate with example. (08 Marks)  
b. How do you enforce encapsulation using accessors and mutators and class properties? (08 Marks)  
c. How does C# support multiple inheritance explain with example. (04 Marks)
- 5 a. How delegates are used in C#? Discuss multicast and single cast delegates with examples. (10 Marks)  
b. "Catching the exceptions programmatically is good and necessary mechanism" justify with suitable example. (06 Marks)  
c. Explain "checked" and "unchecked" keywords with respect to C#. (04 Marks)
- 6 a. Explain the implementation of combobox control, Group box control and menus with respect to windows forms. (10 Marks)  
b. Write a program for addition of two numbers from text boxes display the result in form using button click event. (06 Marks)  
c. Write a short note on MDI window. (04 Marks)
- 7 a. Explain the procedure for connecting to a Database and executing insert, update and delete queries. (10 Marks)  
b. Explain ADO·Net entity frame work. (05 Marks)  
c. Write a short note on ADO·NET objects. (05 Marks)
- 8 a. Explain validation controls supported by ASP·Net. (10 Marks)  
b. Discuss session management and cookies in ASP·Net. (10 Marks)

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