Fifth Semester MCA Degree Examination, July/August 2021
Programming using C# and •NET

Time: 3 hrs.   Max. Marks:80

Note: *Answer any FIVE full questions.*

1   a. Explain the benefits of •NET framework with help of architecture diagram.   **(08 Marks)**
    b. Explain any five components of •NET frame work 4.0.   **(08 Marks)**

2   a. Explain the various preprocessor directives in C#.   **(06 Marks)**
    b. What is boxing and unboxing? Write a C# console application to demonstrate boxing and unboxing.   **(08 Marks)**
    c. Discuss the significance of is and as operator.   **(02 Marks)**

3   a. Differentiate between properties and indexers.   **(06 Marks)**
    b. Explain different method parameter modificer with suitable examples.   **(08 Marks)**
    c. Differentiate between jagged array and rectangular array.   **(02 Marks)**

4   a. How method overriding is different from method over loading? Explain with an example.   **(08 Marks)**
    b. Write a C# program to explain multiple inheritance using interface.   **(08 Marks**

5   a. What are delegates? Explain the types of delegates with suitable examples.   **(08 Marks)**
    b. How are exceptions handled in C#. Illustrate with an examples.   **(08 Marks)**

6   a. Write a C# code to create a dataset from data adapter.   **(06 Marks)**
    b. Explain the components of ADO.NET entity framework.   **(06 Marks)**
    c. Discuss the components of data sets.   **(04 Marks**

7   a. Discuss group boxes and panel controls with respect to window form.   **(08 Marks)**
    b. Explain the steps involved in creating MDI forms.   **(08 Marks)**

8   a. Explain various mouse events in C# window application.   **(06 Marks)**
    b. Write steps to create a connection to a database using SQL server database.   **(10 Marks)**

9   a. Explain the architecture of a three tier web based application.   **(08 Marks)**
    b. Explain session tracking in detail.   **(08 Marks)**

10 a. Explain different validation control with suitable examples supported by ASP.NET.   **(08 Marks)**
    b. Write a web based application using C# ASP.NET to display date and time with a message.   **(08 Marks)**

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