

7. (i) Describe the navigation process performed between records in ADO.Net.
- (ii) What is data binding ? State different types of data binding with their respective applications.

UNIT – IV

8. (i) Differentiate between the working of Server controls and Client controls. Give an overview of State management provided by ASP.Net.
- (ii) What do you understand by Web Services provided by ASP.Net ? What are different aspects incorporated in implementing the web services.
9. (i) Explain how authorization is different from authentication ? How authentication is implemented with ASP.Net.
- (ii) Define Caching. Explain different locations where caching can be applied. Briefly explain different types of caching.

Roll No.

67241

**MCA 5th Semester Current Scheme
(with new notes)
Examination – December, 2016**

ADVANCED TECHNOLOGY

Paper : MCA-501

Time : Three Hours] [Maximum Marks : 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all. Question No. 1 is **compulsory**. In addition to Question No. 1 attempt *four* more questions selecting *one* question from each Unit.

1. (i) Draw the evolution diagram of C# starting from programming language C.
- (ii) What do you mean by Versionable characteristic of any programming language ?
- (iii) List the tools provided by .Net framework for managing user interfaces.

- (iv) Define the Nan data type introduced in C#.
- (v) Explain how delegate works in C# program with an example.
- (vi) Briefly describe the responsibilities of .Net data provider.
- (vii) Discuss the use and importance of grid control on the web form.
- (viii) State the anatomy of .Net page.

UNIT - I

- 2. (i) Discuss how managed code is different from unmanaged code. List advantages of using managed code with appropriate examples.
 - (ii) What do you mean by type safety feature of C# language? Explain how it makes C# more user friendly language.
3. Describe the .Net technology. Explain how Intermediate Language (IL) is a vital component of .Net technology. Discuss different components of .Net framework with their respective functions and characteristics. Also discuss the concept of framework base classes and their role in .Net environment.

UNIT - II

- 4. (i) Define namespaces used in C#. Explain how aliases can be used for namespace classes with examples. Why do we use using directive in a C# program?
 - (ii) What is boxing and unboxing? Why these concepts are applied in C# programming? How these are achieved?
5. (i) How does an array of ArrayList class differ from an array of Array class? List any *five* functions of ArrayList class.
- (ii) What is property? Why are they referred to as smart fields? How does an indexer differ from a property in terms of implementation?

UNIT - III

- 6. (i) "Dataset is an integral part of ADO.Net". Support your answer by listing its functions and different components. List different characteristics that differentiate ADO from ADO.Net.
- (ii) What is the object model of ADO.Net? Discuss its various components with the help of labelled diagram.