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**Question Paper Code: 49209**

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2019

Elective

Computer Science and Engineering

14UCS909 - C# and .NET FRAMEWORK

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Size of "Long" data type in C#  
(a) 8                      (b) 4                      (c) 2                      (d) 1
2. What does the term 'immutable' means in term of string objects?  
(a) We can modify characters included in the string  
(b) We cannot modify characters contained in the string  
(c) We cannot perform various operation of comparison, inserting, appending etc  
(d) None of these
3. Choose the statements which makes delegate in C#.NET different from a normal class  
(a) Delegates in C#.NET is a base class for all delegates type  
(b) Delegates created in C#.NET are further not allowed to derive from the delegate types that are created  
(c) Only system and compilers can derive explicitly from the Delegate or Multicast Delegate class  
(d) None of these

4. A type of class which does not have its own objects but acts as a base class for its subclass is known as
- (a) Static class      (b) Sealed class      (c) Abstract class      (d) None of these
5. What is the name of the property of ASP.NET page that you can query to determine that a ASP.NET page is being requested not data being submitted to web server?
- (a) FirstGet      (b) Initialized      (c) IncludesData      (d) IsPostBack
6. To perform asynchronous data access, what must be added to the connection string?
- (a) BeginExecute=true      (b) MultiThreaded=true  
(c) MultipleActiveResultSets=true      (d) Asynchronous=true
7. In ASP.NET application DLL files are stored in
- (a) APP\_Code      (b) APP\_Data  
(c) Bin      (d) APP\_LocalResources
8. Application\_Start event is available in which file?
- (a) Global.asax      (b) Local.asax  
(c) Web.config      (d) None of these
9. Which utility can be used to compile managed assemblies (like Dll's and EXE) into native code
- (a) gacutil      (b) ngen      (c) sn      (d) dumpbin
10. Choose the following security features can .NET applications avail?
1. Code Access Security 2. PIN Security 3. Authentication Security 4. Role Based Security 5. Biorhythm Security
- (a) 1, 4, 5      (b) 2, 5      (c) 1, 4      (d) 3, 4

PART - B (5 x 2 = 10 Marks)

11. List the Characteristics of C#.
12. What is delegate? List the steps involved in creation and usage of delegates.
13. Recall list bound controls. Give examples.
14. What is Web services.
15. Distinguish the two types of attributes in .NET.

PART - C (5 x 16 = 80 Marks)

16. (a) (i) Discuss the Array, List and Dictionary in C#. (8)
- (ii) Write a program to sort n numbers in ascending and descending order using array. (8)

Or

- (b) Demonstrate method overloading in C# with suitable example program. (16)

17. (a) Describe the concept of delegates with an example program. (16)

Or

- (b) Develop a program in C# for calculating tax or IT and ST using classes `salestaxcalculator(itemname, itemprice, calculatetax(), display())`, `Incometax(ename, totsaalry, taxableincome, display())` along with abstract class `TaxCalculator(tax)`, abstract method `calculateTax()`. (16)

18. (a) Describe the steps for accessing data with ADO.NET. Write a C# program to manage friends address book. (16)

Or

- (b) Explain in detail about Multiple Document Interface and how to create menu using Multiple Document Interface in .NET. (16)

19. (a) Create a simple Web Service that converts the temperature from Fahrenheit to Celsius, and vice versa using ASP.NET. (16)

Or

- (b) (i) Illustrate the steps to create a web application in C# using ASP.NET. (8)
- (ii) Explain the advantages of a Web Forms based web applications. (8)

20. (a) Explain the concept of reflection with an example program. (16)

Or

- (b) Explain the concept of reflection with an example program. (16)

