B.E/B.TECH DEGREE EXAMINATIONS: APRIL/MAY 2014

(Regulation 2009)

Sixth Semester

CSE122: C# AND.NET PROGRAMMING

(Common to CSE & IT)

Time: Three Hours   **Maximum Marks: 100**

Answer ALL Questions:-

PART A (10x1=10 Marks)

1. Which of the following statements is correct about Managed Code?

   a) Managed code is the code that is compiled by the JIT compilers
   b) Managed code is the code where resources are Garbage Collected.
   c) Managed code is the code that runs on top of C#.
   c) Managed code is the code that is written to target the services of the CLR

2. Which of the following statements is correct about enum in C#?
   i. The default value of first element of an enum is 0.
   ii. If there is no access specifier, enum is treated as public.
   iii. An enum can be declared inside a class, struct, interface or namespace.
   iv. Values assigned to enum elements must always begin with 0.

   a) i
   b) i,ii,iii
   c) ii
   d) i & iv

3. In which of the following areas are delegates commonly used?
   1. Remoting 2.Serialization 3.File Input/Output 4.Multithreading 5.Event handling

   a) 1 and 5
   b) 2 and 5
   c) 5
   d) 4 and 5

4. An Account class has a property called accountNo and acc is a reference to a bank object and we want the C#.NET code snippet given below to work. Which of the following options will ensure this functionality?

   a) Declare accountNo property with both get and set accessors
   b) Declare accountNo property with only get accessor.
   c) Declare accountNo property with get, set and normal accessors.
   d) Declare accountNo property with only set accessor

5. What is the name of the control for putting menus on a form?

   a) FormMenu
   b) MenuForm
   c) MainMenu
   d) Menu Control

6. Which is true about the name and text property of a control?

   a) They are the same when the control is first created.
   b) The text property changes to match any changes in the name property
   c) The name property changes to match any changes in the text property.
   d) They are not allowed to be the same and an error will occur if they are.

7. Why is Global.asax used in ASP.NET?

   a) To implement application & Session level events
   b) To store configuration information
   c) To store styling information
   d) To implement only application events

8. Which of the following is not true about ADO.NET?

   a) ADO.NET enables to create distributed data sharing applications
   b) ADO.NET uses XML to transfer data across applications and data source
   c) The classes of ADO.NET are defined in the System.Data namespace
   d) ADO.NET doesn't support disconnected architecture

9. If there is no activity from a browser, how long will a session variable last in .NET?

   a) 10 minutes
   b) 60 minutes
   c) 20 minutes
   d) 5 minutes

10. What are the two dominant types of web services used in industry?

    a) WSDL and JSON
    d) SOAP and REST
    c) SOAP and JSON
    d) SOAP and CXF

PART B (10x2 = 20 Marks)

11. Distinguish between CTS and CLS
12. Write a C# program to split a date into multiple parts(day,month &year) using regular expressions
13. Illustrate the difference between value type parameter and ref type parameter with a suitable example.
14. Identify and write any three differences between external interface implementation and internal interface implementation.
15. Write a C# design code for a voting system using more than two different controls
16. Distinguish between dataset and data adapter.
17. What is the basic difference between ASP and ASP.NET?
18. Write an ASP.NET code to validate a date entered in the textbox. The date entered by the user must be ranging from 1.1.2009-1.1.2010.
19. How to make a class accessible as a web service in C#?
20. Write a C# program to copy and move a file using file concept.

PART C (5x14 = 70 Marks)

21. a) (i) How does a jagged array differ from a rectangular array? Write a C# program to (6) count the two repeated elements in a given array.(Include comments in the program to explain logic)

   (ii) Compare and contrast any ten technical differences between C# and Java. Give (8) suitable program codes wherever applicable

(OR)

   b) (i) Explain about .NET architecture and its components in detail (8)

   (ii) Make use of the regular expression concept in C# and write a program to find the (6) word that starts with the letter 'S' in a given string and remove the duplicate words present in a given string that ends with the letter 't'.

22. a) (i) Write a C# program to perform all the operations of a queue. Raise an event (8) whenever an item is added to the queue, item is removed, queue becomes empty and queue is filled.

   (ii) Write shorts notes on the unique features of interfaces in C# with examples (6)

(OR)

   b) (i) Write a C# program to find the product of two matrices using the concept of (8) operator overloading and properties.

   (ii) Distinguish between early binding and late binding. Explain late binding with a (6) example

23. a) (i) Set up an array of the following musical instruments: Cello ,guitar ,violin ,double (6) bass.
   Write a C# program to loop round and remove the vowels in the array. Display the new words in a textbox or in list box.

   (ii) Write short notes on List Box Controls,ListView Control and Link label controls (8) with suitable examples

(OR)

   b) i) Develop an application for a checkerboard pattern using C# with the words "black" (10) and "white" standing in for colours. Display the new words in a textbox or list box for the following output.

   ```
   white-black-white-black-white-black-white-black-
   black-white-black-white-black-white-black-white-
   white-black-white-black-white-black-white-black-
   black-white-black-white-black-white-black-white-
   white-black-white-black-white-black-white-black-
   black-white-black-white-black-white-black-white-
   white-black-white-black-white-black-white-black-
   black-white-black-white-black-white-black-white-
   ```

   ii) Write a Visual C# code to do the following operations (4)
      a) Form to have two radio buttons and a list box.
      b) Based on the selection of the radio box, the contents of the list box needs to be displayed

24. a) Compare and contrast the various state management techniques available in

ASP.NET with their advantages over one another

(OR)

   b) (i) Design the following form to be filled up by all the students of a school, for electing (6) the school president. .Write the ASP.NET code for the design and validate the user input using various validators available in ASP.NET

   (ii) Write a ASP.NET Code using the disconnected architecture of ADO.NET to do the (8) following operations for a banking website
      a)Count the number of user visiting the website using Application objects
      b) Store the user details in a cookie
      c) Delete all the users ,who have a account balance less than 1000

25. a) (i) Explain about the components of web services architecture. (8)

   (ii) Develop a web services to count the number of occurrences of a substring in a given (6) string. Get the input from the user. Write the code for developing and consuming it.

(OR)

   b) (i) Write a web services code using files to perform the following operations (8)
      • Get the file as input from the user and count the number of lines, words and characters in a file.
      • Append some content to the file

   (ii) Write short notes on various streams available In C# with suitable examples (6)

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