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P.E.S. College of Engineering, Mandya - 571 401
(An Autonomous Institution under VTU, Belgaum)
Eighth Semester, B.E., - Information Science and Engineering
Semester End Examination; June -2016
C# and .NET

Time: 3 hrs   *Max. Marks: 100*

*Note: Answer any **FIVE** full questions, selecting at least **TWO** full questions from each part.*

PART - A

1. a.	Explain how the common language runtime (CLR) hosts an application on Dot net platform with the help of a neat diagram.	10
b.	Explain the four characteristics pertaining to CTS class types.	4
c.	Explain the features offered by C# language, which are also shared by other Dot Net a ware programming languages.	6
2 a.	Write a C# program to display the following information using system Environment class : i) Host Name ii) Operating system version iii) Dot Net Version iv) Logical drives. v) Current directory of application	8
b.	Define CSC.exe. Explain the five file output options provided by C# compiler.	6
c.	Explain the role of the following C# preprocessor directives with examples. i) # line ii) # warning iii) # region iv) # endregion	6
3 a.	Differentiate between valve types & Reference Types.	8
b.	Write a C# Program to generate Fibonacci series upto N, Value of N is read from console.	6
c.	Write a C# Program, to check whether the given string is a palindrome or not.	6
4 a.	Explain how encapsulation is enforced using i) Accessors and Mutators ii) Properties Give examples.	8
b.	Explain containment/delegation model with a simple example.	6
c.	Explain the following keywords with an example. i) base ii) scaled	6

PART - B

5 a.	Explain the following with an example. i) Target site property ii) Stack Trace and Help Link property	8
b.	Explain the following keywords with examples. i) Finally ii) using.	6
c.	List and explain the members of system. ●GC Type.	6
6. a	Define the term Interface. Explain the three methods used for obtaining Interface references.	10
b.	Explain Icloneable Interface with a simple example.	5
c.	Explain Idoneable Interface with a simple example.	5

7 a. Design a **delegate Examples** class and populate the class

    i) Declare a delegate name **StrMod** that takes one **string** parameter & returns a string.

    ii) Write two Static methods with matching signature.

    1) removespaces( ) to remove spaces in the string

      2) reversestring() to reverse the string.

    iii) Create a reference to **StrMod** by name **strop**. in the main program.

    iv) Demonstrate the prog by performing string modifications [Removing space and reversing string] on a given string.
    12

  b. Explain event based programming in C# with a suitable example. 8

8 a. Explain overloading of equality operators & comparison operators with examples. 10

  b. Explain the following i) stacklloc ii) Unsafe 4

  c. Explain any three core benefits of .NET assembly. 6

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