

TIT-504

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Printed Pages : 4

Paper Code &amp; Roll No. to be filled in your Answer Book

Roll No. 

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Odd Semester Examination-2016

**B.Tech. (Semester-V)****VISUAL PROGRAMMING & DOTNET  
TECHNOLOGIES**

[Time : 3 Hours]

[Maximum Marks :100]

**Note :** Attempt **all** questions.

1. Attempt **any four** parts : [5 × 4=20]
- (a) What are the building blocks of .Net framework?  
Show and explain their relationship with neat diagram.
- (b) What is .Net assembly? Explain all the components of .Net assembly.
- (c) Discuss the disadvantages of previous languages & platforms & how .Net solution overcome those disadvantages?
- (d) Explain jitter along with its benefits.

- (e) What do you understand by namespace? What is the need of namespaces in a program and how can they be accessed programmatically?
- (f) Explain how CLR host an application on .Net platform. Draw the block diagram.

2. Attempt **any four** parts: [5 × 4=20]

- (a) Explain how CSC.exe compiler is used to build C# application. Explain any five options with appropriate examples.
- (b) Write a program to display the current directory, system directory, available drives in your computer system, machine name and the current operating system you are using.
- (c) List down the C# pre-processor directives & how can you use those pre-processor directives in your program. Give an example for each.
- (d) Write a program in C# to read a 2-D array from user and display the sum of all the elements of the array.
- (e) What is the difference between value types and reference types? Is there any way to convert value

types into reference types and vice-versa? If yes then explain the procedure.

(f) Write a program to check whether a given string is palindrome or not.

3. Attempt **any two** parts: [10 × 2=20]

(a) What are the three pillars of object oriented programming in C#? Differentiate between “is-a” and “has-a” relationship. Write down a program to show both the relationships.

(b) List and explain with code, the core members of System.Exception class.

(c) Explain complete process of garbage collection in .Net. How can you finalize an object?

4. Attempt **any two** parts: [10 x 2=20]

(a) What is an interface? Why they are used in C# programming? With a program demonstrate the implicit and explicit access of interfaces.

(b) Explain:

ICloneable and Icomparable

(c) Create a base class called shape. Use this class to store two double type values that could be used to

compute the area of figures. Derive two specialized classes triangle and rectangle from base shape. Make area as a virtual method and redefine this method in the derived classes.

5. Attempt **any two** parts: [10 × 2=20]

(a) What is the difference between shared assembly and private assembly? How can you install and uninstall shared assembly in .Net?

(b) Differentiate between single file assembly and multifile assembly with neat diagram. Also write down the procedure of creating multifile assembly in CSC.exe.

(c) Write short notes on (**any three**) : [10 × 2=20]

(i) Cross language inheritance

(ii) Probing

(iii) Delegates

(iv) Classical inheritance

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