

MCA

(SEM. V) ODD SEMESTER THEORY EXAMINATION 2013-14

DOT NET FRAMEWORK AND C#

Time : 3 Hours

Total Marks : 100

Note :-Attempt all questions. All questions carry equal marks.

1. Attempt any four parts : (5x4=20)
  - (a) Write short notes on the working of CLR.
  - (b) Explain the different web services available with. .Net framework.
  - (c) Explain the concept of framework base classes. How is it used ?
  - (d) Explain the architecture of .Net framework.
  - (e) What are the various applications we can develop with C# ? Also list out parts in the structure of a C# program.
  - (f) What is the difference between CLS and CTS ?
2. Attempt any four parts : (5x4=20)
  - (a) Show the usage of following modifiers in C# with examples:
    - (i) Sealed
    - (ii) Abstract
    - (iii) Static
    - (iv) Virtual.
  - (b) Write short notes on any two :
    - (i) Delegate
    - (ii) Event.
  - (c) What do you understand by Operator Overload ? Explain.
  - (d) What are the special operators in C# ? Explain with suitable example.
  - (e) Write a program that counts the number of occurrences of a particular character in a line of text. Write a program that counts the number of words in a text document. (Use File System).
  - (f) Write a program to produce the following form of Floyd's triangle:  
1  
0 1  
1 0 1  
0 1 0 1  
1 0 1 0 1
3. Attempt any two parts : (10x2=20)
  - (a) What is Thread ? How can we create and start a thread in C# ? Explain the main properties of the thread in C#.

- (b) What is Exception Handling ? How is it done in C# ? Explain about the throwing exceptions.
  - (c) Define socket. How socket programming is done in C# ? Explain with example.
4. Attempt any two parts : (10x2=20)
- (a) What are Windows Services ? List down different editors that you can use to create a windows installer package using Visual Studio.
- (b) Write a short notes on the following:
- (i) GDI (Graphical Devices Interface) classes in C#
  - (ii) Distributed application in C++.
  - (c) What are web services ? Create a window client application that uses ^he Web service to reserve a seat in the cinema.
5. Attempt any two parts : (10x2=20)
- (a) What do you mean by Generic ? How can you create your own generic types, including classes, interface, methods and delegates ?
  - (b) Describe attribute, Built-in-attribute and Custom attribute. How can you create custom attributes ?
  - (c) Differences between private and shared assembly. How can you create shared assemblies by creating a key file and signing the project to create a strong name for the assembly ?