**CS2041 C# and .Net**

**Question Bank**

**UNIT 1 – Two Marks**

1. What are the advantages of using .NET?

2. Differentiate value type and reference type.

3. Is it possible to have two Main() in a C# code? If so, how is it resolved?

4. What do you mean by CLR?

5. What is metadata? Mention its uses in .NET.

6. What is Namespace? List out the Namespaces of .NET Framework.

7. What are boxing and unboxing ?

8. Define inter-operability. How does .net Achieve this?

9. What do you mean by Jagged Arrays?

10. What is the use of Enumeration? What is string? How strings are declared?

11. What are the basic concepts of OOP?

12. Write the differences between C++ and C#.

13. Name the applications created by the C#.NET.

14. What is called ternary Operator?

15. List out the special operators in c#.

16. What is foreach statement in c#.

17. What is called Method Invocation?

18. Compare Regular Array with Jagged Array?

19. What are the Features of array?

20. Write a C# Program to Print “ HELLO WORLD”.

**UNIT 1 – 16 Marks**

 1. Explain in detail about the .net Framework.

 2. (i) Explain the execution model of the .NET framework. (6)

 (ii) Describe the components of .Net framework and explain the features of each

 component. (10)

 3. EXPLAIN THE FOLLOWING i. Foreach ii. Structures iii. Arrays iv. Array list.

 4. Explain in detail about various operators available in C#.

 5. (i) Explain about various value and reference types supported by c# (8)

 (ii) What is jagged array? Explain its use with simple example (8)

6. Explain about Enumerators and structures in C#.

7. (i) Explain the switch case construct with example Program (8).

 (ii) Explain about the nested-if statement and else-if statement with example Program(8).

8. What is an Array? Using array to write a C# Program for sorting the numbers (16).

9. What are the basic Elements of C# Programming Languages?

10. Explain the Relational and Logical Operators with suitable programs.

**UNIT 2 – Two Marks**

1. What is the use of static constructor in C#?

2. What is the use of ‘new’ in inheritance?

3. Distinguish between ref and out parameters

4. What is inclusion polymorphism?

5. What is exception? How it is handled in C#?

6. What is the use of finally block?

7. Define delegate and event handlers?

8. Compare new with override modifier.

9. What are multicast delegates?

10. What is static member & static method?

11. Define sealed class.

12. What are the characteristics of Inheritance?

13. Define Operator Overloading.

14. Differentiate Property and indexers.

15. Define Errors and its types.

16. Explain about “ this” reference.

17. Define Constructor.

18. What are the features of Namespaces?

19. Write the syntax for an Interface.

20. Write down the classifications of the Properties.

**UNIT 2 – 16 Marks**

1. Explain clearly the use of interfaces Use a banking system as a programming example.

2. (i) List out the exception handling statements supported in C# and explain with an example.

 (ii) What is the use of ‘is’ operator in interfaces? Explain. [8]

3. (i) Consider a class distance which stores a distance value using kilometer and meter.

 Overload the + operator to add two distance objects.

 (ii) Explain in detail about the concept of operator overloading.

4. Explain in detail, using an appropriate programming example, the use of events.

5. Discuss about inheritance and polymorphism in detail.

6. Explain creating and using delegates with example.

7. Explain the Unary and binary operator overloading with suitable example program.

8. Explain the Interface with the Inheritance.

9. (i) Write and explain about the Multicast Delegate.

 (ii) What are the advantages of Inheritance?

10. Write a Program to demonstrate the Method Overloading.