

## Midterm Examination

### Short Answer Questions

20 x 2 = 40

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Answer all questions. Circle the correct answer on this paper itself

1. You are designing Class B to inherit from Class A in C#. How would you declare Class B?
  - a. Class A extends B
  - b. Class B extends A
  - c. Class B: A
  - d. Class B::A

**Correct Answer: C**

2. Does C# support multiple inheritance
  - a. Yes
  - b. No

**Correct Answer: B**

3. How do you declare a method that could be overridden in the derived class and still have a body
  - a. Abstract
  - b. Void
  - c. Virtual
  - d. Override

**Correct Answer: C**

4. What is the length of character
  - a. 16 bytes
  - b. 16 bits
  - c. 8 bytes
  - d. 8 bits

**Correct Answer: B**

5. What is the top base class for every class you write in .NET
  - a. System.Object
  - b. System.Int32
  - c. System.Class
  - d. System.Intptr

**Correct Answer: A**

## CS 695 C# and .NET

6. What access modifier do you use to make your member or method accessible only to the derived classes?
- internal
  - protected
  - private
  - public

**Correct Answer: B**

7. Which of the following is not a C# keyword

- void
- checked
- implicit
- final

**Correct Answer: D**

8. What is the keyword used in class definition if you don't want to other classes to derive from your class.

- private
- sealed
- final
- finally

**Correct Answer: B**

9. Which class could be used to Get directory listing

- Directory
- DirectoryInfo
- Both a and b
- None of above

**Correct Answer: C**

10. Which of the following classes could be used to read or write binary files

- StreamReader
- StreamWriter
- FileStream
- None of the above

**Correct Answer: C**

11. What is the output of this code

```
using System;
public class Test
{
    public static void Main ()
    {
        int a=10;
        Console.Write(--a+a++);
        Console.Write(--a+a);
        Console.Write(a--);
    }
}
```

- a. 18 18 10
- b. 18 18 9
- c. 19 18 9
- d. 18 19 10

**Correct Answer: B**

12. Which of the following is the correct way of declaring an array of strings

- a. String arr[];
- b. String arr[10];
- c. String[] arr;
- d. String[10] arr;

**Correct Answer: C**

13. Which of the following class is used for Graphics operations

- a. System.Drawing.Graphics
- b. System.Graphics
- c. System.Drawing.Bitmap
- d. None of the above

**Correct Answer: A**

14. What is the output of this code

```
using System;
public class Test
{
    public static void Main ()
    {
        byte a=10;
        byte b=10;
        byte c=a+b;
        Console.WriteLine(c);
    }
}
```

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- a. Compiles and Generates a runtime error
- b. Generates a compile error
- c. 20
- d. 1010

**Correct Answer: B**

15. Which of the following class is used for Regular expressions

- a. System.Regex
- b. System.Text.RegularExpressions.Regex
- c. System.Text.Regex
- d. None of the above

**Correct Answer: B**

16. ASP.NET webservice extends which base class

- a. System.Web.Page
- b. System.Web.Service
- c. System.Web.Services.WebService
- d. None of the above

**Correct Answer: C**

17. Fill Methods in Graphics usually take this object as an argument

- a. Pen
- b. Brush
- c. Point
- d. None of the above

**Correct Answer: B**

18. How do you access an element in a 2 dimensional array named arr

- a. arr[x][y]
- b. arr[x,y]
- c. arr(x,y)
- d. None of the above

**Correct Answer: B**

19. How could you access an ASP.NET WebService

- a. HTTP GET
- b. Using SOAP (Simple object access protocol)
- c. HTTP POST
- d. All of the above

**Correct Answer: D**

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20. What is the class that needs to be extended for designing custom exceptions
- System.CustomException
  - System.AllExceptions
  - System.Exception
  - None of the above

**Correct Answer: C**

### Programs

1. Implement a Queue with custom exception Handling  
Choose you own methods and Exception Name
2. Design a Bar chart class
3. Write a web service to find an arithmetic mean of an array of numbers given as input.
4. Get all the Directories and files from your local c:\ recursively

**Code Solutions on the Web Site in Code section (under Lecture 7)**