

- N.B. :** (1) Question No. 1 is compulsory.
 (2) Solve any four from Question Nos. 2 to 7.
 (3) All questions carry equal marks.

y-5-05

Q1) Write short notes on the following (any five) :

20

- Immutable String
- Difference between Interface & Abstract Class
- Data types in c#
- Eight differences between Java & c#
- .NET Framework
- Exception handling in C#
- Operation polymorphism.

Q2) a) Explain four types of method parameters.

8

b) Write a program that prints the following format

6

```
#####
#####
#####
#####
#####
```

c) Explain the function of break, continue and goto using examples.

6

Q3) a) Write a program to convert the temperature in Fahrenheit (starting from 98.5 to 102 in steps of 0.1) to Celsius using the formula $C = (F - 32) / 1.8$ and display the values in a tabular form.

8

b) Explain Method Overriding. Show a program that implements this concept.

6

c) Draw the flow chart and explain the activities of CLR for executing a program.

6

Q4) a) What is an Array List. Write a program using array list.

8

b) Explain Mutable strings in brief.

6

c) Write a program to show the creation & implementation of delegate.

6

Q5) a) Write a program to print the following Floyd's triangle

8

```
1
2 3
4 5 6
7 8 9 10
11 ..... 15
...
....
79 ..... 91
```

b) What is a property. How do we declare and use it (show a program).

6

c) Explain the function of the following

6

- CompareTo()
- Concat()
- LastIndexOf()
- Remove()
- Trim()
- Substring()

Q6) a) Given a list of marks ranging from 0 to 100, write a program to compute and print the number of students who have obtained marks.

8

- in the range 81 to 100
- in the range 61 to 80
- in the range 41 to 60, and
- in the range 0 to 40

b) i) What are static methods? When do we use it

3

ii) What is a readonly member? When and why it is used

3

c) What are interfaces? Write a program to show the implementation of multiple interfaces.

6

Q7) a) What is operator overloading. Write a program to show the implementation of unary operator.

8

b) Explain structures? Show how to implement structures in a class.

6

c) Explain

6

- abstract methods & classes
- sealed methods & classes