

10/10/19

VCD S.Y.B.SC. (CS) .NET Technologies SEM-IV 75-MARKS 2^{1/2}-HRS

- N.B
- 1) All questions are compulsory.
 - 2) Figures to the right indicate marks.
 - 3) Illustrations, in-depth answers and diagrams will be appreciated.
 - 4) Mixing of sub-questions is not allowed.

Q.1 Attempt All(Each of 5 marks) (15M)

(a) Multiple Choice Questions.

1. Which of the following statements are correct about data types?
 1. If the integer literal exceeds the range of byte, a compilation error will occur.
 2. We cannot implicitly convert non-literal numeric types of larger storage size to byte.
 3. Byte cannot be implicitly converted to float.
 4. A char can be implicitly converted to only int data type.

A. 1,2 B. 1,2,3 C. 3,4 D. 1,4
2. Which of the following is an 8-byte Integer?

A. Char B. Long C. Short D. Byte
3. Which of the following statements is correct?
 - A. It is not possible to extend the if statement to handle multiple conditions using the else-if arrangement.
 - B. The switch statement can include any number of case instances with two case statements having the same value.
 - C. A jump statement such as a break is required after each case block excluding the last block if it is a default statement.
 - D. The if statement selects a statement for execution based on the value of a Boolean expression.
4. Which of the following statements is correct?
 - A. Information is never lost during narrowing conversions.
 - B. The CInteger() function can be used to convert a Single to an Integer.
 - C. Widening conversions take place automatically.
 - D. Assigning an Integer to an Object type is known as Unboxing.
5. Which of the following can be facilitated by the Inheritance mechanism?

Use the existing functionality of base class.

 1. Override the existing functionality of base class.
 2. Implement new functionality in the derived class.
 3. Implement polymorphic behavior.

A. 1,2,3 B. 4,2,3 C. 3,4 D. 1,4

(b) Fill in the blanks

(8, destructor, constructor, CLR, 18, Garbage Collector, public, internal, implicit, indirect)

- 1) _____ is the correct output of the C#.NET code snippet given below?

```
int[ , , ] a = new int[ 3, 2, 3 ];
Console.WriteLine(a.Length);
```
- 2) Structures CANNOT contains _____.
- 3) _____ is a default access specifier for inner classes?
- 4) _____ is NET components can be used to remove unused references from the managed heap.
- 5) Automatic conversion is also called as _____.

(c) Short Answers

- 1) Define boxing and unboxing.
- 2) List down the functions carried out by Common Language Runtime.
- 3) Define Jagged Array.
- 4) Define SqlDataset.
- 5) How to implement partial web page refreshment?

Q.2 Attempt the following. (Any THREE)(Each of 5 Marks)

(15M)

- a) Draw and Explain .NET framework architecture
- b) Explain flow control, explain what is break and continue statement
- c) What are different ways of passing the parameters to any methods?
- d) What are the rules in defining a constructor? Explain static constructor with example.
- e) Write a short note on Assembly.
- f) What is the difference between .aspx file and .cs file? Explain with an example for each.

Q.3 Attempt the following. (Any THREE)(Each of 5 Marks)

(15M)

- a) Explain Page Life Cycle Stages in ASP.NET.
- b) What is post-back event? Explain IsPostBack with suitable example.
- c) What is state management? explain Application state management
- d) What is Query String? Explain encoding and decoding of Query string
- e) What is the use of MasterPages in ASP.NET? How a Content page can be added to a Master Page.
- f) What is validation? Explain Range validator & Compare validator with its properties

Q.4 Attempt the following. (Any THREE)(Each of 5 Marks)

(15M)

- a) Explain connected architecture of ADO.NET.
- b) What is a GridView control? Explain how to enable row selection, paging and sorting features of it.
- c) Create a web page which accept student id in dropdown list from student table write down the steps and code for the same.
- d) What is Ajax? Explain UpdatePanel control with example.
- e) Explain the LINQ query syntax with an example query.
- f) Short note on XMLTextWriter & XMLTextReader.

Q.5 Attempt the following. (Any THREE)(Each of 5 Marks)

(15M)

- a) Write short note on Global.asax.
- b) Explain Calendar Control and its properties.
- c) When to Use Caching? Explain Data Caching.
- d) What is inheritance? Write a program to implement concept of multiple inheritance.
- e) What is navigation? How to use Site map path control for navigating web sites?