

Course Name : MSCCS

Subject Name : Web Development Tools

Subject Code : MSCCS-201

Date : 21-02-2026

Time : 11:30AM TO 01:45PM

Max Marks : 70

Section A

Q.-1. Respond to any three of the following questions in brief. (30)

- (1) Describe the compilation and execution process of a .NET application with a neat diagram.
- (2) Explain Managed Code and Unmanaged Code. Compare them with advantages and limitations.
- (3) What is Intermediate Language (IL)? Explain its role in platform independence of .NET applications.
- (4) Explain different types of control structures in C#. Describe conditional statements with suitable examples.
- (5) What are properties in C#? Explain get and set accessors with suitable examples.

Section B

Q.-2. Write short notes on any four of the following topics. (20)

- (1) Explain the role of Common Language Runtime (CLR) in the .NET Framework.
- (2) What is the role of CLR in .NET?
- (3) Explain the complete .NET Architecture with the role of CLR, CTS, BCL and Assemblies.
- (4) Describe the structure of a C# program and explain the role of Main() method.
- (5) Explain Interfaces in C# and differentiate them from abstract classes.
- (6) Describe Multithreading in C# and explain how threads improve application performance.

Section C

Q.-3. Choose the correct option (A, B, C, or D). (10)

(1) .NET Framework mainly contains which two components?

- | | |
|----------------|----------------|
| A) CLR and CTS | B) CLR and BCL |
| C) BCL and CTS | D) IL and JIT |

(2) Which code is platform independent?

- | | |
|-----------------|-------------------|
| A) Machine Code | B) Unmanaged Code |
| C) MSIL Code | D) Native Code |

(3) Which of the following is a value type?

- | | |
|----------|-----------|
| A) Class | B) Array |
| C) int | D) String |

(4) BCL is also known as _____.

- | | |
|--------|--------|
| A) CLR | B) FCL |
| C) CTS | D) JIT |

(5) C# is a _____ programming language.

- | | |
|--------------------|---------------|
| A) Procedural | B) Functional |
| C) Object Oriented | D) Scripting |

(6) Which keyword is used to create an object in C#?

- | | |
|----------|-----------|
| A) class | B) object |
| C) new | D) create |

(7) Which keyword is used to import a namespace?

- | | |
|------------|--------------|
| A) include | B) using |
| C) import | D) namespace |

(8) Single line comment in C# starts with _____.

- A) /*
- B) ##
- C) //
- D) <!--

(9) Value type data is stored in _____.

- A) Heap
- B) Stack
- C) Cache
- D) Register

(10) Conversion of value type to reference type is called _____.

- A) Casting
- B) Boxing
- C) Unboxing
- D) Parsing

Section D

Q.-4. Decide whether the statements given below are True or False.

(10)

- (1) MSIL code is platform dependent.
- (2) Value types store data directly in their own memory location.
- (3) BCL is common for all .NET programming languages.
- (4) Metadata eliminates the need for Interface Definition Language (IDL).
- (5) JIT compiler converts MSIL into native machine code.
- (6) Single line comments in C# start with //.
- (7) XML documentation comments start with /**.
- (8) Reference types store the actual value directly.
- (9) do-while loop executes at least once even if condition is false.
- (10) break statement skips the current iteration and continues the loop.