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BCA 6<sup>th</sup> Semester (Only Re-appear)

Examination, December-2024

INTRODUCTION TO .NET

Paper-BCA-309

Time allowed : 3 hours]

[Maximum marks : 80

**Note :** (i) Attempt five questions in all by selecting one question from each unit. Question No.1 is compulsory.

(ii) All questions carry equal marks.

1. (a) What is function overriding?
- (b) Why C# is more object-oriented?
- (c) What are abstract classes?
- (d) What are control constructs in C# ?
- (e) What is automatic memory management?
- (f) What is metadata in .NET?

#### Unit-I

2. (a) What is Visual-Studio.Net? Enumerate its capabilities for C# application development.
- (b) What are web forms? What are their salient features? What are the components of a web form? Illustrate their working.

(2)

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3. Explain the following :

- (a) .NET Framework
- (b) Namespaces in .NET

**Unit-II**

4. (a) What are Class Libraries in C# ? Illustrate.

(b) What is C#? How it is different from Java? Explain.

5. Explain the following :

- (a) Data types in C#
- (b) Boxing and Unboxing

**Unit-III**

6. (a) What are various data access methods? Which data access method is used in .NET and why? Illustrate its benefits over other methods.

(b) What is a method in C#? How a method is invoked in C#? What is the significance of writing main method in different ways? Also give two examples where method overloading is applied.

7. Explain the following :

- (a) Operator precedence & associativity
- (b) for and foreach loops

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**Unit-IV**

8. (a) What do you understand by exception handling in C#? What are the major tasks involved in handling exceptions? What are the exceptions that occur commonly in C# programs?
- (b) Answer the following :
- (i) Why is proper ordering of catch blocks necessary in C#?
  - (ii) What happens when an exception is caused in an inner try block of a nested try block?
  - (iii) How exception-handling mechanisms can be used for debugging a program?
9. Explain the following :
- (a) Sealed classes and methods
  - (b) Interfaces in C#