# Seventh Semester B.E. Degree Examination, June/July 2024
## C# Programming and •NET

Time: 3 hrs.                         Max. Marks:100

**Note:** *Answer FIVE full questions, selecting atleast TWO questions from each part.*

## PART – A

1   a.   Discuss the building blocks of •Net with the neat diagram.     **(10 Marks)**
    b.   Discuss the advantages of multi languages. Environment over single language environment.     **(05 Marks)**
    c.   Explain the •Net execution life cycle with the neat diagram.     **(05 Marks)**

2   a.   With example, explain about output options of the C# compliers.     **(05 Marks)**
    b.   Explain about cordbg.exe with an example.     **(05 Marks)**
    c.   Write a C# program to display the following information using System.Environment class :
        i)   Current directory of application :
        ii) OS version
        iii) Logical drives
        iv) Host name
        v) •Net version.     **(05 Marks)**
    d.   Explain the role of the following C# preprocessor directives with examples.
        i) # region and # End region    ii) # line.     **(05 Marks)**

3   a.   Is it necessary to make main( ) method as a static? Justify your answer with example.     **(02 Marks)**
    b.   Give the method parameter modifier and explain each with an example.     **(08 Marks)**
    c.   Explain in detail about array manipulation in C#.     **(10 Marks)**

4   a.   What are the there pillars of object oriented programming in C#? Differentiate between "is – a" and "has – a" relationships.     **(10 Marks)**
    b.   Illustrate with an example, polymorphic support in C#.     **(10 Marks)**

## PART – B

5   a.   List and explain with code, the core members of System.Exception type.     **(10 Marks)**
    b.   Discuss the functions of 'new' keyword in C# and explain with an example.     **(05 Marks)**
    c.   Explain the "System.GCtype" with an illustration.     **(05 Marks)**

6   a.   What is an interface? Explain two methods to obtain interface references.     **(10 Marks)**
    b.   With an example, explain any four interfaces of System.Collections.     **(10 Marks)**

7  a. What is delegates? Differentiate between synchronous and asynchronous delegates with example. **(10 Marks)**

   b. Discuss the following advanced keywords is C#.
      i) Checked   ii) unsafe   iii) Stack ad-hoc   iv) size of   v) unchecked. **(10 Marks)**

8  a. Differentiate between :
      i)  Single-file and Multi-file Assemblies
      ii) Physical and logical view of an assembly. **(10 Marks)**

   b. Write short notes on :
      i)  Cross language inheritance
      ii) Shared assemblies. **(10 Marks)**

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