Graphic Era
HILL UNIVERSITY
Established by an Act of the State Legislature of Uttarakhand (Adhiniyam Sankhya 12 of 2011)
University under section 2(f) of UGC Act, 1956

Mid Term (Odd) Semester Examination October 2024

Roll no..2292104.........

Name of the Course and semester: BCA V Semester
Name of the Paper: Programming with .NET C#
Paper Code: TBC 502

Time: 1.5 hour   Maximum Marks: 50

Note:
  (i) Answer all the questions by choosing any one of the sub questions
  (ii) Each question carries 10 marks.
  (iii) Please specify COs against each question.

Q1.   (10 Marks)
a. Explain .NET framework and its importance. What are the key components of .NET framework?
    (CO1)
                                        OR
b. Explain the concept of the Common Language Specification (CLS) with respect to data types and also explain how it enhances language interoperability in .NET applications.   (CO1)

Q2.   (10 Marks)
a. Define assemblies and its types in .NET, and how do they address the issue of DLL Hell?   (CO1)
                                        OR
b. Define Boxing and Unboxing. State its classification by using some examples. (CO2)

Q3.   (10 Marks)
a. Write a C# program that makes the use of a SWITCH statement for determining the name of
  . the day based on a number input from the user (1 for Sunday, 2 for Monday, etc.).   (CO4)
                                        OR
b. What are the different data types in C#? State them by using suitable example?

Q4.   (10 Marks)
a. Discuss FOR EACH in .NET. Write a C# program that initializes an array of strings with the names of five cities, and then makes a use of FOREACH loop to print each city name to the console. (CO1, CO4)
                                        OR
b. Illustrate how arrays are used to store multiple values in C#. State some benefits of using jagged array over simple arrays. Also, state the difference between a simple array and the jagged array with suitable examples.   (CO2)

Q5.   (10 Marks)
a. Define Namespace? Write any 5 namespaces used with .NET. Also, write a program to show the
  · implementation of Namespace. (CO1, CO4)
                                        OR
b. Analyse the concept of platform independence in .NET. How does it facilitate the development and deployment of applications across different operating systems?   (CO3)