



Tribhuvan University
Faculty of Humanities & Social Sciences
OFFICE OF THE DEAN
2024

Bachelor in Computer Applications
Course Title: DotNet Technology
Code No: CACS 302
Semester: V

Full Marks: 60
Pass Marks: 24
Time: 3 hours

Candidates are required to answer the questions in their own words as far as possible.

Group B

Attempt any SIX questions.

[6×5 = 30]

2. What is the importance of Garbage collection in .NET framework? Explain .NET Framework architecture with suitable diagram. [2+3]
3. What is variable size array? Write a C# program to create multidimensional array to store the marks of three student in different subjects. First student has marks of 3 subjects, Second student has marks of 4 subjects and Third student has marks of 2 subjects. Display the subject marks and average marks for each student. [1+4]
4. Explain concept of static class and static constructor with suitable program. [5]
5. What is named argument? Explain with suitable program, how to create alias for namespace in C#. [1+4]
6. What is static binding? Write a C# program to add and subtract two complex number using binary operator overloading. [1+4]
7. Why Delegate is used in C#? Write a C# program to select odd and divisible by 3 number from list of number (1-30) using LINQ query. [2+3]
8. Write short notes on : (any two)
a) Copy constructor b) Indexer c) Lambda Expression

Group C

Attempt any TWO questions.

[2×10 = 20]

9. Differentiate between **struct** and **enum**. Why do we need to handle the exception? Illustrate with an example with your own customized exception. [3+2+5]
10. Define generics. Explain it with proper example. How virtual method is used to achieve dynamic binding in C#? Explain with the help of suitable program. [4+6]
11. What are differences between Data Adapter and Data Reader in ADO.NET? Suppose you are hired by a reputed software company which is going to design an application for "Employee Management System". Your responsibility is to design a schema named EMS and create a table named **Employee** (EmpNo, Name, Email, phone number, Company, Department, Joining Date, and Salary). Write a program to design a ASP.NET form to take input for this table and insert the data into table after clicking the Save button [3+7]