

# CBGS SCHEME

Librarian

USN Learning Resource Centre  
Acharya Institutes

15CS564

## Fifth Semester B.E. Degree Examination, Feb./Mar. 2022 Dot Net Framework for Application Development

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. List the issues which arise when namespace is not used with examples explain how it can be solved using namespace. (05 Marks)
- b. Write a C# program with method monthName() which accepts month number as parameter and returns month name as return value. Method should throw an exception if user enter an invalid month number. Write Main() method which calls monthName and passes month number and displays month name on the screen. (06 Marks)
- c. What is an implicitly typed variable? Explain with example now implicitly typed variables are declared. (05 Marks)

OR

- 2 a. Define expression bodied method. Explain how to use expression bodied method with example. (04 Marks)
- b. What is an exception? Write a program in C# to demonstrate multiple catch exception. (07 Marks)
- c. Write a C# program to find sum of two, three and four numbers using method overloading. (05 Marks)

### Module-2

- 3 a. What are method modifiers? Explain any two method parameters with example. (05 Marks)
- b. Write a C# program which has two methods Calculate() and Main(). Calculate method accepts two numbers and finds sum, difference, product and division of two numbers. Main() method will read two numbers from user and prints results on the screen. (06 Marks)
- c. Give differences between value type and reference type. (05 Marks)

OR

- 4 a. Define jagged array. With example, explain how jagged arrays are declared. (05 Marks)
- b. List the differences between structure and class with example. (05 Marks)
- c. What is boxing and unboxing? Explain with example. (06 Marks)

### Module-3

- 5 a. Explain how to control method hiding and overriding using new, virtual and override keyword with example. (08 Marks)
- b. Write a C# program to search an element in an array using method. Write Main() method read array elements, key element and display result on screen. (08 Marks)

OR

- 6 a. Define garbage collection. What are the steps taken by garbage collector to remove objects which goes out of scope. (04 Marks)
- b. Write a C# program which has following classes :
- Class 'Figure' which has two data members 'dim1' and 'dim2' and a constructor to initialize data fields.
  - Class 'Triangle' inherited from Figure with constructor and method Area( ) to calculate area of triangle.
  - Class 'Rectangle' inherited form Figure with constructor and method Area( ) to calculate area of rectangle.
  - Class 'Demo' with Main( ) method to crate two objects of triangle and rectangle class and displays area on screen. (08 Marks)
- c. Explain following with suitable code Snippet : i) scaled class ii) abstract class. (04 Marks)

**Module-4**

- 7 a. What is an indexer? Explain operator provided by C# to set and access the individual bits in an int using indexer. (04 Marks)
- b. Write a C# program with class 'Employee' which has two fields 'name' and 'salary'. Write appropriate properties for these fields. Write Main( ) method to create object, set values of name and salary and display on screen. (06 Marks)
- c. List different forms of lambda expressions available in C#. (06 Marks)

OR

- 8 a. What are the problems with the object type? How can you solve these problems using generic class with example? (06 Marks)
- b. Explain how to create automatic property and how to initialize object using properties. (05 Marks)
- c. Write code to queue collection class. (05 Marks)

**Module-5**

- 9 a. Implement an enumerator automatically by creating an iterator in C# and explain. (06 Marks)
- b. Define language integrated query. Write code and explain how to display a list consisting of first name of each customer. (04 Marks)
- c. Write a C# program to demonstrate operator overloading of + and - for adding and subtracting two complex numbers. Write Main( ) method to crate two complex number and display their sum and difference using overloaded method. (06 Marks)

OR

- 10 a. Explain how event is declared, subscribed, unsubscribed and raised. (08 Marks)
- b. Write a note on following using query operator :
- Select first name from customer table
  - Filter data
  - Order data
  - Group data. (08 Marks)

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