



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.C.A. DEGREE EXAMINATION – COMPUTER APPLICATIONS

FIFTH SEMESTER – NOVEMBER 2023

UCA 5503 – VISUAL PROGRAMMING

Date: 03-11-2023

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

SECTION A - K1 (CO1)

Answer ALL the Questions

(10 x 1 = 10)

1. Define the following

- a) Variables
- b) Arrays
- c) Enumerations
- d) File Stream
- e) .NET IDE

2. Fill in the blanks

- a) In C#, 'using' is a _____.
- b) "new" is used for _____ the objects.
- c) Destructor will be called by _____.
- d) _____ class provides forward-only and read-only access to data
- e) ASP.NET is a _____ side technology

SECTION A - K2 (CO1)

Answer ALL the Questions

(10 x 1 = 10)

3. Match the following

Access Modifiers

Meaning

- a) Public Accessible within the same class and derived classes
- b) Private Accessible from anywhere.
- c) Protected Accessible from within the same assembly or from derived classes in other assemblies
- d) Internal Accessible only within the same class
- e) Protected Internal Accessible within the same assembly.

4. True or False

- a) The .NET framework is a software platform developed by Microsoft for building and running applications.
- b) Constructors and destructors in C# are optional, and you don't need to include them in your classes.
- c) Abstract classes can be instantiated directly in C#.
- d) Exception handling is primarily used to anticipate and prevent errors during code compilation.
- e) ASP.NET applications can only be developed using the Visual Studio IDE.

SECTION B - K3 (CO2)

Answer any TWO of the following

(2 x 10 = 20)

- 5. List two types of control statements used in C# and briefly describe their functions.
- 6. Name two types of arrays used in C#, and explain when you might use a jagged array.
- 7. What is the primary role of exception handling in C# when dealing with runtime errors?
- 8. Describe the role of an Integrated Development Environment (IDE) in ASP.NET development

SECTION C – K4 (CO3)**Answer any TWO of the following****(2 x 10 = 20)**

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| 9. | Compare and contrast the foreach loop and for loop in C#. Provide examples to illustrate the differences and benefits of each loop type. |
| 10. | Analyze the role of constructors and destructors in C# classes. Evaluate their significance in object initialization and cleanup. |
| 11. | Examine the differences between character-based file I/O and byte-oriented file I/O in C#. |
| 12. | Analyze the concept of method overriding in C# inheritance with an example. |

SECTION D – K5 (CO4)**Answer any ONE of the following****(1 x 20 = 20)**

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| 13. | Evaluate and synthesize the different types of operators in C# with its purpose and examples. |
| 14. | Develop a web application for an online registration form. The registration form collects various user details, including name, email address, password, date of birth, and phone number. To ensure data accuracy and completeness, you decide to implement a comprehensive set of validation controls. Describe how you would use the validation controls from ASP.NET to validate the user input |

SECTION E – K6 (CO5)**Answer any ONE of the following****(1 x 20 = 20)**

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|-----|---|
| 15. | Design a system for managing various types of vehicles, including cars, motorcycles, and bicycles, using inheritance in C#. Explain how you would structure the classes and inheritance hierarchy, and discuss the advantages of using inheritance to model different vehicle types |
| 16. | Write the usage and significance of abstract classes and interfaces in ASP.NET |

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