

Nov-25-01-0482

B.C.A Sem. –V (NEP Course) Examination

November - 2025

GUI Programming Using C# .Net - MS23MJDSCBCA501A

Total Marks : 50

Time : 2.30 Hours

Q-1 Answer the followings (Any Two)

10

1. Explain the .NET Framework in detail.
2. Write a brief note on JIT compiler.
3. What is CTS? Describe value type and reference type with example.

Q-2 Answer the followings (Any Two)

10

1. Describe Visual Studio IDE in detail.
2. Explain the basic concepts of C# programming and the principles of OOP in detail.
3. Explain C# data types and operators.

Q-3 Answer the followings (Any Two)

10

1. List out standard Toolbox controls and demonstrate TextBox and ListBox control.
2. What are common dialog controls? Explain any two dialog controls.
3. Describe Properties, Methods, and Events of controls.

Q-4 Answer the followings (Any Two)

10

1. Explain the ADO.NET architecture.
2. Describe SQL Server connectivity using ADO.NET.
3. What is Crystal Reports? Explain its integration with Visual C#.

Q-5 Answer the followings (Any Five)

10

1. What is .NET technology?
2. What is MSIL code?
3. Differentiate overloading and overriding.
4. Difference between Message Box and Input Box.
5. Define Data Adapter in ADO.NET.
6. What is a Dataset?

Nov-25-01-0492
B.C.A Sem. –V (NEW Course) Examination
November-2025
BCA 502-.Net Using C#

Total Marks :70

Time : 2.30 Hours

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|-------|--|----|
| 1.(a) | Answer the following Any Two : | 06 |
| 1. | What is Delegate? Explain | |
| 2. | What is MSIL? Explain | |
| 3. | What is JIT? | |
| 1.(b) | Answer the following (Any Two) | 12 |
| 1. | Explain .NET Framework Architecture | |
| 2. | Explain Data Types of C# | |
| 3. | Explain features of .NET in detail | |
| 2.(a) | Answer the following | 05 |
| 1. | Explain Namespace | |
| 2. | What is Web Server? Explain | |
| 2.(b) | Answer the following (Any Two) | 12 |
| 1. | Differentiate between Window based and Web based Applications | |
| 2. | What do you mean by Rich Controls? Explain any one rich control with its main properties and event | |
| 3. | Explain Link Button and Radio Button Controls | |
| 3.(a) | Answer the following Any Two | 06 |
| 1. | Explain Required Filed Validator | |
| 2. | Explain Compare Validator | |
| 3. | Explain Regular Expression Validator | |
| 3.(b) | Answer the following (Any Two) | 12 |
| 1. | What is Navigation Control? Explain Tree View Control | |
| 2. | Explain Grid View Control. Also provide difference between Repeater Control and grid view control | |
| 3. | What is Master Page? Give types and steps to add themes in a Web Page | |
| 4.(a) | Answer the following | 05 |
| 1. | What is Data Adapter? Give its methods | |
| 2. | Explain Data Binding | |
| 4.(b) | Answer the following (Any Two) | 12 |
| 1. | Explain the architecture of ADO.NET | |
| 2. | Differentiate between Data Reader and Data Set | |
| 3. | What are the characteristics of ADO.NET? | |
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Nov-25-01-0481
B. C. A. Sem – V (NEP Course) Examination
Oct-2025
JAVA Programming – MS23MJDSBCA501

Total Marks : 50

Time : 2.30 Hours

Q-1 Answer the followings (Any Two)

10

1. Explain the basic concepts of object-oriented programming.
2. Explain the basic structure of a Java program.
3. What is an array? How to declare and create an array in Java? Explain with syntax and example.

Q-2 Answer the followings (Any Two)

10

1. Explain multilevel inheritance with example.
2. What is an abstract class? Write a program which explains the use of an abstract class.
3. What is a constructor? Explain types of constructors with suitable example.

Q-3 Answer the followings (Any Two)

10

1. Explain life cycle of a thread.
2. Explain String class with methods and example.
3. How to create your own package? Explain with syntax and example.

Q-4 Answer the followings (Any Two)

10

1. Explain <applet> tag with all its attributes with example.
2. Explain nested try statement and multiple catch statement with syntax and example.
3. Explain any three methods of Graphics class with syntax and example.

Q-5 Answer the followings (Any Five)

10

1. Define JVM, Bytecode.
2. List Java features.
3. What is an interface? Give difference between class and interface.
4. What is a package? List Java API packages.
5. Define Thread, Exception.
6. What is an Applet? Define Remote Applet.

Nov-25-01-0491
B.C.A Sem. –V (NEW Course) Examination
November - 2025
BCA 501-Java Programming

Total Marks :70

Time : 2.30 Hours

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| 1.(a) | Answer the following | 06 |
| | 1. Define Class, Polymorphism | |
| | 2. List Java Features | |
| | 3. How to create constants in JAVA? Give example | |
| 1.(b) | Answer the following (Any Two) | 12 |
| | 1. Explain JDK tools available in JAVA | |
| | 2. Explain the basic structure of Java Program | |
| | 3. Explain command line arguments in detail with example | |
| 2.(a) | Answer the following | 05 |
| | 1. Define final Variable, abstract class | |
| | 2. Write short notes on access modifiers | |
| | 3. Explain command line arguments in detail with example | |
| 2.(b) | Answer the following (Any Two) | 12 |
| | 1. Explain types of Inheritance with example | |
| | 2. Explain Method overriding with example | |
| | 3. What is constructor? Explain types of constructors with suitable example | |
| 3.(a) | Answer the following | 06 |
| | 1. What is Package? List Java API Packages | |
| | 2. Write short notes on Thread Priority | |
| | 3. List any four methods of Math class | |
| 3.(b) | Answer the following (Any Two) | 12 |
| | 1. Explain Interface in detail with syntax and example | |
| | 2. Explain Stack class with methods and example | |
| | 3. How to create our own package? Explain with syntax and example | |
| 4.(a) | Answer the following | 05 |
| | 1. What is Exception? | |
| | 2. What is the use of throw statement? | |
| | 3. Define Local Applet, remote applet | |
| 4.(b) | Answer the following (Any Two) | 12 |
| | 1. Explain Applet life cycle in detail | |
| | 2. Explain Exception Handling with syntax and example | |
| | 3. Explain any Four methods of Graphics class with syntax and example | |
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Nov-25-01-0484
B.C.A Sem. –V (NEP Course) Examination
November - 2025
Operating System - MS23MIDSCBCA502A

Total Marks : 50

Time : 2.30 Hours

Q-1 Answer the followings (Any Two)

10

1. Explain in detail component of OS
2. Explain in detail Batch Operation System and Multiprogramming Operation System
3. Explain Mobile OS and Embedded OS

Q-2 Answer the followings (Any Two)

10

1. Explain process life cycle and Process states Transition Diagram
2. Explain Scheduling Algorithm 1. First Come First Serve 2. Round Robin
3. Explain Deadlocks and Condition for it

Q-3 Answer the followings (Any Two)

10

1. Difference between Logical address and Physical address
2. Explain in detail Paging and Demand Paging
3. Page Replacement Algorithms 1. FIFO 2. Least Recently Used (LRU)

Q-4 Answer the followings (Any Two)

10

1. Explain about Features of UNIX Kernel
2. Unix File Management File Types, File Permissions, Access Methods, Directory Structure
3. List out all the Process Management Commands

Q-5 Answer the followings (Any Five)

10

1. What is Operating System?
 2. Type of Operating System
 3. What is Turnaround Time
 4. What is Waiting Time?
 5. What is Process?
 6. What is virtual memory?
 7. How does dynamic partitioning differ from fixed partitioning?
 8. How is PWD used in UNIX?
 9. What are the different type of files in UNIX?
 10. What is external fragmentation?
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Nov-25-01-0494
B.C.A Sem. –V (NEW Course) Examination
November - 2025
BCA 504-Computer Security

Total Marks :70

Time : 2.30 Hours

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| 1.(a) | Attempt the following | 06 |
| | <ol style="list-style-type: none">1. Define Firmware2. What is Two Factor Authentication?3. What is information security?4. What is cyber security?5. List out types of computer system | |
| 1.(b) | Answer the following (Any Two) | 12 |
| | <ol style="list-style-type: none">1. What is Computer Security? Explain its types in detail2. Discuss about CIA model in detail3. Explain types of computer crimes in detail | |
| 2.(a) | Attempt the following | 05 |
| | <ol style="list-style-type: none">1. What is Spyware?2. List out any three Viruses3. Define Phishing4. What is Antivirus?5. Full Form IDS | |
| 2.(b) | Answer the following (Any Two) | 12 |
| | <ol style="list-style-type: none">1. What is Firewall? Explain characteristics if Firewall2. What is Intruders? Discuss with its all types in detail3. Discuss about Worms, Trojan Horse and Bombs in detail | |
| 3.(a) | Attempt the following | 06 |
| | <ol style="list-style-type: none">1. Define Hacker2. What is interception?3. What is Resident virus?4. What is keygen?5. What is Spoofing?6. What is meaning of vulnerability of password? | |
| 3.(b) | Answer the following (Any Two) | 12 |
| | <ol style="list-style-type: none">1. Explain about password management with its challenges2. What is Crackers? Discuss about password cracking in detail3. Discuss Interception, Interruption, Modification and Fabrication | |
| 4.(a) | Answer the following | 05 |
| | <ol style="list-style-type: none">1. Full From SMTP2. Define Block Ciphers3. Define E-Mail4. What is Cryptography?5. Full form TCP/IP | |
| 4.(b) | Answer the following (Any Two) | 12 |
| | <ol style="list-style-type: none">1. Discuss about SSL in detail2. Explain digital signature in detail3. Discuss about MIME in detail | |
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Nov-25-01-0483
B.C.A Sem. –V (NEP Course) Examination
November-2025
Software Engineering - MS23MIDSCBCA502

Total Marks : 50

Time : 2.30 Hours

Q-1 Answer the followings (Any Two)

10

1. Explain software characteristics in detail.
2. Explain software quality attributes in detail.
3. Explain spiral model with advantages and disadvantages.

Q-2 Answer the followings (Any Two)

10

4. Explain abstraction and its types.
5. Explain the characteristics of a good SRS.
6. Explain the difference between function-oriented design approach and object-oriented design approach

Q-3 Answer the followings (Any Two)

10

1. Explain alpha, beta, gamma testing.
2. What is coding? Discuss programming style in coding.
3. Explain functional testing in detail.

Q-4 Answer the followings (Any Two)

10

1. What is risk? Explain risk management in detail.
2. Short note: Verification and validation.
3. Explain in detail: ISO 9000 certification in software.

Q-5 Answer the followings (Any Ten)

10

1. Define: Software Crisis.
2. Define: Increment Model.
3. Define “Confidentiality” in terms of professional responsibility of a Software Engineer.
4. List any four software engineering benefits.
5. Define: Role of metrics.
6. Define: System Design.
7. What is boundary value analysis?
8. Define: Structured programming.
9. What is Information Hiding?
10. What is CMM?
11. Define: COCOMO model.
12. Define: Software Reverse Engineering.

Nov-25-01-0493
B.C.A Sem. –V (NEW Course) Examination
November - 2025
BCA 503-Software Engineering

Total Marks :70

Time : 2.30 Hours

- 1.(a) Answer the following 06
1. State and describe two attributes of software quality
 2. Mention difference between software engineering and computer science
 3. What are the software and software process?
- 1.(b) Answer the following (Any Two) 12
1. Explain Prototyping Softer Process Model with advantages and disadvantages
 2. Discuss major applications of software in different domains
 3. Explain principles of software Engineering
- 2.(a) Answer the following 05
1. What is a software requirement? Define user requirements and system requirements
 2. What is the role of management in software project planning? Explain in brief
- 2.(b) Answer the following (Any Two) 12
1. Describe the characteristics of Good SRS
 2. Differentiate between functions oriented design and object-oriented design approaches
 3. What are software metrics? Explain the role of measurement in software quality assurance
- 3.(a) Answer the following 06
1. What is test case? Define test criteria
 2. What is software testing? List main objectives of testing?
 3. What is a test plan, and why is it important?
- 3.(b) Answer the following (Any Two) 12
1. Define Programming style? List some elements that contribution to a good programming style
 2. Compare functional testing and structural testing
 3. What is top-down testing? Describe its process
- 4.(a) Answer the following 05
1. What is project scheduling? What are Gantt chart and PERT charts?
 2. What is a Quality Assurance (QA) Plan?
- 4.(b) Answer the following (Any Two) 12
1. What is software maintenance? Explain the difference types of software maintenance
 2. What is software project management? Why is project management important in software development?
 3. Explain COCOMO model in detail?
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