CASE .NET

Exam Blueprint
(Version 1)

Domain	Objectives/ Sub-Domain	Weightage
1. Understanding Application Security, Threats, and Attacks	▪ Understand the need and benefits of application security ▪ Demonstrate the understanding of common application-level attacks ▪ Explain the causes of application-level vulnerabilities ▪ Explain various components of comprehensive application security ▪ Explain the need and advantages of integrating security in Software Development Life Cycle (SDLC) ▪ Differentiate functional vs security activities in SDLC ▪ Explain Microsoft Security Development Lifecycle (SDL) ▪ Demonstrate the understanding of various software security reference standards, models, and frameworks	8%
2. Security Requirements Gathering	▪ Understand the importance of gathering security requirements ▪ Explain Security Requirement Engineering (SRE) and its phases ▪ Demonstrate the understanding of Abuse Cases and Abuse Case Modeling ▪ Demonstrate the understanding of Security Use Cases and Security Use Case Modeling ▪ Demonstrate the understanding of Abuser and Security Stories ▪ Explain Security Quality Requirements Engineering (SQUARE) Model ▪ Explain Operationally Critical Threat, Asset, and Vulnerability Evaluation (OCTAVE) Model	8%
3. Secure Application Design and Architecture	▪ Understand the importance of secure application design ▪ Explain various secure design principles ▪ Demonstrate the understanding of threat modeling ▪ Explain threat modeling process ▪ Explain STRIDE and DREAD Model ▪ Demonstrate the understanding of Secure Application Architecture Design	10%

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4. Secure Coding Practices for Input Validation	▪ Understand the importance of robust input validation ▪ Demonstrate the understanding of secure input validation techniques in Web Forms, ASP.NET Core, and MVC ▪ Demonstrate the understanding of defensive coding techniques against SQL Injection attacks ▪ Demonstrate the understanding of defensive coding techniques against XSS attacks ▪ Demonstrate the understanding of defensive coding techniques against Parameter Tampering attacks ▪ Demonstrate the understanding of defensive coding techniques against Directory Traversal attacks ▪ Demonstrate the understanding of defensive coding techniques against Open Redirect vulnerabilities	18%
5. Secure Coding Practices for Authentication and Authorization	▪ Understand authentication and authorization issues ▪ Explain authentication and authorization in Web Forms ▪ Explain authentication and authorization in ASP.NET Core ▪ Explain authentication and authorization in MVC ▪ Demonstrate the understanding of authentication and authorization techniques in Web Forms ▪ Demonstrate the understanding of authentication and authorization techniques in ASP.NET Core ▪ Demonstrate the understanding of authentication and authorization techniques in MVC	16%
6. Secure Coding Practices for Cryptography	▪ Understand cryptography in .NET ▪ Explain symmetric encryption ▪ Demonstrate the understanding of defensive coding practices using symmetric encryption ▪ Explain asymmetric encryption	12%

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	▪ Demonstrate the understanding of defensive coding practices using asymmetric encryption ▪ Explain Hashing ▪ Explain Digital Signatures ▪ Explain Digital Certificates ▪ Demonstrate the understanding of ASP.NET Core-specific secure cryptography practices	
7. Secure Coding Practices for Session Management	▪ Understand session management concepts ▪ Explain various session management techniques ▪ Demonstrate the understanding of defensive coding practices against session hijacking attacks ▪ Demonstrate the understanding of defensive coding practices against session replay and session fixation attacks ▪ Demonstrate the understanding of techniques to prevent sessions from cross-site scripting, client-side scripts, and CSRF attacks ▪ Demonstrate the understanding of techniques to prevent session attacks on ViewState ▪ Demonstrate the understanding of ASP.NET Core specific secure session management techniques	4%
8. Secure Coding Practices for Error Handling	▪ Understand error and exception handling concepts ▪ Explain the need of secure exception handling ▪ Demonstrate the understanding of defensive coding practices against information disclosure ▪ Demonstrate the understanding of defensive coding practices against improper error handling ▪ Demonstrate the understanding of secure error handling practices in ASP.NET Core ▪ Explain secure auditing and logging best practices	10%
9. Static and Dynamic Application Security Testing (SAST & DAST)	▪ Explain Static Application Security Testing (SAST) concepts ▪ Demonstrate the understanding of manual secure code review techniques for common vulnerabilities	6%

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	▪ Explain Dynamic Application Security Testing ▪ Demonstrate the knowledge of automated application vulnerability scanning tools to perform DAST ▪ Demonstrate the knowledge of proxy-based security testing tools to perform DAST	
10. Secure Deployment and Maintenance	▪ Understand the importance of secure deployment ▪ Explain security practices at host level ▪ Explain security practices at network level ▪ Explain security practices at application level ▪ Explain security practices at IIS level ▪ Explain security practices at .NET level ▪ Explain security practices at SQL Server level ▪ Demonstrate the knowledge of security maintenance and monitoring activities	8%