



BRAINWARE UNIVERSITY

Term End Examination 2023-2024

Programme – M.Sc.(ANCS)-2022

Course Name – Enterprise Security Architecture and Design

Course Code - MNCS403A

(Semester IV)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Identify the purpose of the House Design Model in enterprise security architecture.
 - a) To define community standards
 - b) To design corporate standards
 - c) To outline building codes and engineering practices
 - d) To establish a framework for security system design
- (ii) How do community standards differ from corporate standards in enterprise security architecture? Identify.
 - a) Community standards are legally binding, while corporate standards are not.
 - b) Community standards apply to specific industries, while corporate standards are universal.
 - c) Community standards are developed by government agencies, while corporate standards are developed by private companies.
 - d) Community standards are established by local communities, while corporate standards are established by organizations.
- (iii) What is the purpose of a standard in security governance?
 - a) To provide guidelines for security operations
 - b) To establish security policies
 - c) To automate security processes
 - d) To develop security guidelines
- (iv) Which of the following is not a key component of the Enterprise Security System Design Model? Identify.
 - a) Risk assessment
 - b) Threat intelligence
 - c) Security architecture
 - d) Business requirements
- (v) Cite the purpose of an identity management architecture in security technology architecture.
 - a) To manage user authentication and access
 - b) To monitor network traffic
 - c) To protect against malware
 - d) To perform vulnerability scans
- (vi) What is the purpose of policy layers and relationships?

- a) To provide a framework for developing security policies
- b) To manage user access to resources
- c) To identify and manage security vulnerabilities
- d) To automate security policies
- (vii) Identify the purpose of consensus asset valuation.
- a) To determine the value of an asset through agreement among stakeholders
- b) To prioritize the protection of assets
- c) To determine the likelihood of an asset being damaged
- d) To assign monetary value to assets
- (viii) What are the key elements of security governance?
- a) Policy development, vulnerability management, and security administration
- b) Risk assessment, event management, and incident management
- c) Asset management, policy development, and security operations
- d) Policy framework, principles template, and standard guidelines & procedures
- (ix) Determine the main goal of the border protection architecture.
- a) To create a framework for identity management
- b) To establish community standards for security architecture
- c) To design and develop security technology architecture
- d) To provide protection for an organization's network perimeter
- (x) Choose which of the following statements best describes the conceptual architecture for policy-driven security.
- a) It is a set of security controls that protect an organization's assets and resources from unauthorized access.
- b) It is a high-level design that defines the relationships between security policies, controls, and events.
- c) It is a detailed technical specification that outlines the implementation of security policies in an organization's IT infrastructure.
- d) It is a set of procedures for responding to security incidents.
- (xi) Select which of the following is a characteristic of a security technology architecture.
- a) It provides guidance for security governance
- b) It specifies policies and procedures for security administration
- c) It defines security controls and mechanisms for protection
- d) It outlines asset management strategies
- (xii) Contrast the house architecture with security technology architecture.
- a) House architecture focuses on aesthetics, while security technology architecture focuses on functionality.
- b) House architecture is concerned with physical structure, while security technology architecture is concerned with virtual structure.
- c) House architecture is determined by the homeowner, while security technology architecture is determined by security professionals.
- d) House architecture is static, while security technology architecture is dynamic.
- (xiii) What is the purpose of security technology architecture?
- a) To develop and enforce corporate security standards
- b) To define and implement security policies and procedures
- c) To measure and manage security operations
- d) To design and develop security technology services
- (xiv) Select the differences between the bill of materials and security services.
- a) The bill of materials specifies the cost of security services, while security services specify the materials used.
- b) The bill of materials specifies the materials used, while security services specify the cost of the materials.
- c) The bill of materials is a document, while security services are physical products.
- d) The bill of materials is used during the maintenance phase, while security services

(xv) Assess the main benefit of policy automation.

- a) Reduced costs
- c) Increased revenue

are used during the design phase.

- b) Improved efficiency
- d) Better security

Group-B

(Short Answer Type Questions)

3 x 5=15

- 2. Compare and contrast the various security technologies used in security operations. (3)
- 3. Define the concept of enterprise security architecture and provide an example of how it can be used to improve security governance. (3)
- 4. Explain the concept of identity management architecture and describe its key components. (3)
- 5. What is security technology architecture? (3)
- 6. What is the role of security analytics in security operations? (3)

OR

Develop a disaster recovery plan to ensure business continuity in the event of a security breach. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

- 7. Explain the importance of policy-driven security architecture in addressing emerging security threats. (5)
- 8. Develop asset management with respect to enterprise security architecture & design. (5)
- 9. Develop a policy-driven security architecture that aligns security policies with business objectives and regulatory requirements. (5)
- 10. Analyze the enterprise security system design model in terms of its benefits and limitations. (5)
- 11. Examine how a policy-driven security architecture can minimize risk and discuss its advantages. (5)
- 12. Explain incident management and how it relates to security technology architecture. (5)

OR

Evaluate the effectiveness of security technology tools for measuring and reporting on security operations. (5)
