Cyber Security and Privacy, IIT Madras Prof. Saji K Mathew

Week 3 Quiz (All questions carry 1 point each)

- 1. The process of defining and specifying the long-term direction to be taken by an organization, and the allocation and acquisition of resources needed to pursue this effort is known as:
 - a. Governance
 - b. Security Management
 - c. Strategic Planning
 - d. Objectives

Ans: c. Strategic Planning

Explanation: Strategic planning sets the long-term direction to be taken by the organization and each of its component parts to guide organizational efforts and focus resources toward specific, clearly defined goals.

- 2. Which of the following statements best describes the relationship between GRC (Governance, Risk, and Compliance) and cybersecurity?
 - a. GRC focuses solely on cybersecurity management and overlooks other risk management initiatives.
 - b. Cybersecurity is the primary focus of GRC, with minimal consideration for other risks.
 - c. GRC integrates cybersecurity as one component within the broader framework of enterprise risk management (ERM).
 - d. GRC is a standalone framework independent of cybersecurity and risk management.

Ans: c. GRC integrates cybersecurity as one component within the broader framework of enterprise risk management (ERM).

Explanation: GRC acknowledges cybersecurity as an essential aspect of risk management but places it within the broader context of enterprise risk management (ERM). This approach ensures that cybersecurity initiatives are aligned with overall organizational goals and risk management strategies, encompassing various risks beyond just cyber-related ones

- 3. A written document provided by management that inform employees and others in the workplace about proper behavior regarding the use of information and information assets are known as:
 - a. Guidelines
 - b. Information Security Policy
 - c. De facto standard
 - d. Practices

Ans: b. Information Security Policy

Explanation: An information security policy provides rules for the protection of the organization's information assets.

- 4. Which approach to cybersecurity management treats cybersecurity as a separate category distinct from other risks an organization may face, and focuses solely on cybersecurity, depending on the size and nature of the organization?
 - a. Standard Driven Approach
 - b. Organization Planning Approach
 - c. GRC Framework
 - d. Risk Management Framework

Ans: a. Standard Driven Approach

Explanation: The Standard Driven Approach. It relies on open standards such as the NIST Cybersecurity Framework (American) and proprietary ISO/IEC 27001 standard for information security (European) to guide cybersecurity efforts.

- 5. Benefits of implementing a GRC in an organization include:
 - a. Responsible operations
 - b. Data-driven decision-making
 - c. Improved cybersecurity
 - d. All the above

Ans: d. All the above

Explanation: By implementing GRC programs, the entire organization aligns its policies, decisions, and actions with organizational objectives.

- 6. What is the purpose of the COBIT maturity model?
 - a. To assess an organization's maturity in IT governance processes
 - b. To rank organizations based on their financial performance
 - c. To determine the efficiency of network infrastructure
 - d. To evaluate employee satisfaction levels in the IT department

Ans: a. To assess an organization's maturity in IT governance processes

Explanation: COBIT provides a set of standards and practices for IT governance.

- 7. COSO's ERM framework emphasizes:
 - a. Operational efficiency
 - b. Risk identification and assessment
 - c. Regulatory compliance
 - d. Human resource management

Ans: b. Risk identification and assessment

Explanation: The COSO ERM Framework aims to help organizations understand and prioritize risks and create a strong link between risk, strategy and how a business performs.

- 8 . Which characteristic distinguishes the approaches of COBIT, COSO, and COSO-ERM from specific standards like ISO or NIST?
 - a. They prioritize cybersecurity over other risk management aspects.
 - b. They focus exclusively on small to medium-sized enterprises (SMEs).
 - c. They operate at the enterprise level rather than focusing on specific standards.
 - d. They are primarily developed by governmental regulatory bodies.

Ans: c. They operate at the enterprise level rather than focusing on specific standards.

Explanation: COBIT, COSO, and COSO-ERM operate at the enterprise level, encompassing various aspects of governance, risk, and compliance, unlike specific standards like ISO or NIST, which focus on cybersecurity at a more granular level.

- 9. Why might some countries be hesitant to adopt the ISO 27001 model?
 - a. It is a mandatory standard with strict compliance requirements.
 - b. It is not recognized as a valid security framework by international organizations.
 - c. There are concerns about the model's overall effectiveness compared to existing approaches.
 - d. It prioritizes specific security vendors or technologies.

Ans: c. There are concerns about the model's overall effectiveness compared to existing approaches.

Explanation: Critics posit that there is no reason to believe the model is more useful than any other approach and it is not as complete as other frameworks.

- 10. Which of the following is not considered a principle or practice for securing IT systems?
 - a. Implement layered security to ensure there is no single point of vulnerability.
 - b. Do not implement unnecessary security mechanisms.
 - c. Maximize the system elements to be trusted.
 - d. Assume that external systems are insecure.

Ans: c. Maximize the system elements to be trusted.

Explanation: Minimizing the system elements to be trusted is considered a principle for securing IT systems. (Source: NIST SP 800-14)