Reg. N[redacted]
Name

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MID TERM EXAMINATIONS – July 2024

Programme	:	**B.Tech.**	Semester	:	**Fall Semester 2024-2025**
Course Title	:	**Cyber Security Framework**	Course Code	:	**CSD4008**
Date/Session	:	**16 July 2024/ Session I**	Slot	:	**B11+B12+E11+E12**
Time	:	**1 ½ hours**	Max. Marks	:	**50**

Answer all the Questions

Q.No. **Question Description** **Marks**

1 1. What is the primary purpose of a cybersecurity framework?
a) To reduce IT costs
b) To provide guidelines for securing information systems
c) To increase internet speed
d) To monitor employee productivity

2. Which of the following is a commonly used cybersecurity framework?
a) ISO 9001
b) COBIT
c) NIST Cybersecurity Framework
d) ITIL

3. What does the 'Identify' function in the NIST Cybersecurity Framework primarily focus on?
a) Developing and implementing protective measures
b) Responding to cybersecurity incidents
c) Understanding the business context and identifying resources
d) Recovering from cybersecurity incidents

4. Which of the following is NOT a core function of the NIST Cybersecurity Framework? **10**
a) Identify
b) Protect
c) Develop
d) Detect

5. The ISO/IEC 27001 framework primarily focuses on:
a) Software development
b) Information security management systems (ISMS)
c) Project management
d) Network infrastructure

6. Which component of a cybersecurity framework involves implementing appropriate safeguards?
a) Identify
b) Protect
c) Detect
d) Respond

•7. What is the main objective of the 'Detect' function in a cybersecurity framework?
a) To prevent data breaches
b) To monitor for and identify cybersecurity events
c) To train employees on security protocols
d) To develop business continuity plans

8. The 'Respond' function in the NIST Cybersecurity Framework is primarily concerned with:
a) Implementing protective measures
b) Restoring normal operations after a cybersecurity event
c) Taking action regarding detected cybersecurity incidents
d) Identifying assets and risks

9. Which of the following best describes a cybersecurity framework?
a) A set of tools for virus removal
b) A comprehensive guide to protecting information and systems
c) A software program for encrypting data
d) A hardware device for network security

•10. Which component of a cybersecurity framework is responsible for ensuring that cybersecurity activities are communicated to stakeholders?
a) Identify
b) Protect
c) Detect
d) Respond

2 (a) Discuss the key components and functions of the NIST Cybersecurity Framework that would be particularly beneficial in addressing their specific challenges. 5

2 (b) Analyze the key steps involved in implementing the ISO/IEC 27001 framework within the healthcare organization. What are the main components of this framework, and how can each component help in mitigating the risks associated with patient data breaches? 5

3 1. What is the Framework Core in the NIST Cybersecurity Framework primarily designed to do?
a) Provide a detailed list of cybersecurity tools
b) Establish a set of cybersecurity activities, outcomes, and informative references
c) Offer financial advice for cybersecurity investments
d) Develop marketing strategies for cybersecurity companies

2. Which of the following is NOT a category in the Framework Core?
a) Identify
b) Protect
c) Implement
d) Detect

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3. What is an example of a cybersecurity activity under the 'Identify' function?
a) Conducting risk assessments
b) Installing firewalls

c) Monitoring network traffic

d) Developing an incident response plan

4. Which function of the Framework Core focuses on limiting or containing the impact of a potential cybersecurity event?

a) Identify

b) Protect

c) Detect

d) Respond

5. In the context of the NIST Cybersecurity Framework, what does an outcome refer to?

a) The financial cost of a cybersecurity breach

b) The expected result of implementing a specific cybersecurity activity

c) The number of employees trained in cybersecurity

d) The list of installed security software

6. Which informative reference is commonly used in the 'Protect' function?

a) ISO/IEC 27002

b) COBIT 5

c) ITIL

d) NIST SP 800-53

7. What is a typical cybersecurity activity under the 'Detect' function?

a) Encrypting sensitive data

b) Performing regular audits

c) Implementing continuous monitoring

d) Developing a disaster recovery plan

8. The 'Respond' function includes which of the following activities?

a) Identifying critical assets

b) Implementing protective measures

c) Communicating incident response activities

d) Recovering normal operations after an incident

9. Which of the following is a common outcome expected from the 'Recover' function?

a) Enhanced security training

b) Improved system resilience and recovery planning

c) Decreased network speed

d) Increased marketing effectiveness

10. Informative references in the NIST Cybersecurity Framework are used to:

a) Provide guidelines and standards to support the implementation of cybersecurity activities

b) Offer detailed product reviews for cybersecurity software

c) List potential cybersecurity vendors

d) Develop corporate branding strategies

4 Discuss the anticipated outcomes of implementing the Framework Core within the manufacturing company. How do these outcomes align with the company's goal of enhancing its cybersecurity posture? 10

5 Evaluate the impact of using a tailored Framework Profile on the healthcare organization's cybersecurity posture. How can the organization ensure continuous improvement and adaptation of the Profile to address evolving threats and compliance requirements? 10

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