



Midterm#2

Name:..... ID:..... Section#:323

Q1: Choose the correct answer: 5 points

#	1	2	3	4	5	6	7	8	9	10
Answer										

- 1) What the principle is focused on conflict of interest where a certain user should not be accessing confidential information belonging to two separate interested and/or participating stakeholders:
 - A) Biba Model or Biba Integrity Model.
 - B) The Harrison–Ruzzo–Ullman model.
 - C) The Clark-Wilson Model.
 - D) The Chinese Wall's model.**
- 2) “Recover from damage” is one of the steps:
 - A) Simplicity.
 - B) Security designers follow in tools.**
 - C) Security.
 - D) Minimization.
- 3) The importance of Multi-layer Defense Approach:
 - A) Protects against evolving threats and vulnerabilities.
 - B) Ensures confidentiality, integrity, and availability of data and systems.
 - C) Helps organizations comply with regulatory requirements.
 - D) All the above.**
- 4) It is the initial process of establishing the identity of a user:
 - A) Authorization.
 - B) Access.
 - C) Authentication.**
 - D) Security.
- 5) Multi-layered security related to the defense in depth, which is based on a slightly different idea where:
 - A) Defense in depth is more secure than multi-layer.
 - B) There is no different between them.
 - C) Multi-layer is easier than defense in depth.
 - D) Strategies and resources are used to slow or delay or hinder a threat.**
- 6) Verification techniques can be used in:
 - A) Biba model.
 - B) BLP model.
 - C) To show that a policy is satisfied by a system.**
 - D) To protect data.
- 7) Which of the following is an example of layer of defense:
 - A) Access control.
 - B) Network segmentation
 - C) Threat detection.
 - D) All of the above**
- 8) The elements of Clark-Wilson model:
 - A) Users, TPs, IVPs, CDIs and UDIs.**
 - B) CIA-T.
 - C) HRU, Chinese wall, Biba
 - D) Access, Manage, and Audit.



- 9) "It is difficult to determine which subjects are able to access specific objects by looking at the object itself" disadvantage of:
- A) Biba model.
 - B) Capabilities List.**
 - C) Multi-layer model.
 - D) Access Control List (ACL).
- 10) Some components of Access Control:
- A) Users, TPs, IVPs, CDIs and UDIs.
 - B) CIA-T.
 - C) HRU, Chinese wall, Biba
 - D) Access, Manage, and Audit.**

Q2: Match the correct answer from column A to column B: 5 points

#	A	The answer	B
1	Top Secret, Secret, Confidential, and lowest	4	HRU model
2	System Model + Security Policy	8	Biba integrity model
3	Layers of Defense in Cybersecurity	2	Security Model
4	Implemented via an Access Control List or via a Capabilities list	7	Multi-level Security (MLS)
5	Authentication, authorization, access etc.	1	Security levels arranged in (BLP) Model
6	The security requirements for a given system	6	Security policy
7	Primary Security Goal: Confidentiality	3	Endpoint security
8	Focuses on integrity	5	The Components of Access Control
9	Allowed "READ UP" / "WRITE DOWN".	9	Rules of Biba models
10	These layers strengthen defenses and provide a solid foundation for cyber security program	10	Multi-layer model

Q3: Answer the following questions: 5 points

1) Types of security models?

1. Bell-LaPadula (BLP) Model.
2. Biba Model or Biba Integrity Model.
3. The Harrison–Ruzzo–Ullman (HRU) Model.
4. The Clark-Wilson Model.
5. The Chinese Wall Model.

2) The three main requirements of information security (i.e., security concerns)?

1. Confidentiality.
2. Integrity.
3. Availability.



3) What are the components of Access Control?

1. Authentication.
2. Authorization.
3. Access.
4. Manage.
5. Audit.