Exercise Week 4: Industrial Control System Security (Individual)

Due Feb 13 at 11:59pm   **Points** 10   **Questions** 10
Available until Feb 13 at 11:59pm   **Time Limit** None

Instructions

Answer the following questions applying concepts from NIST 800-82 Guide to Industrial Control Systems (ICS) Security.

Attempt History

	Attempt	Time	Score
LATEST	**Attempt 1**	32 minutes	10 out of 10

Score for this quiz: **10** out of 10
Submitted Jan 21 at 2:38pm
This attempt took 32 minutes.

Question 1	1 / 1 pts

Is the following statement true of false?

A Programmable Logic Controller (PLC) that is implemented as a field device is a Remote Terminal Unit (RTU).

Correct!

  ⦿ True

  ○ False

Question 2

1 / 1 pts

Is the following statement true of false?

An Intelligent Electronic Device (IED) is a hardware-enforced unidirectional gateway.

○ True

Correct!

◉ False

Question 3

1 / 1 pts

SCADA systems have security built in for encrypted communications.

○ True

Correct!

◉ False

Question 4

1 / 1 pts

When a Man-in-the-Middle attack is successful, the hosts on each side are unaware that their data is taking a different route through the attacker's computer.

Correct!

◉ True

○ False

Question 5   1 / 1 pts

What do operators and engineers use to remotely adjust and establish parameters in the controller?

○ PLC

Correct!   ◉ HMI

○ RTU

○ DSC

Question 6   1 / 1 pts

When designing the ICS security architecture we establish a DMZ using a network segment inserted as a "neutral zone" between security domains.

What type of SCADA security strategy is this?

○ Data Diode

Correct!   ◉ Boundary Protection

○ Man-in-the-Middle

○ Authentication and Authorization

Question 7   1 / 1 pts

When designing the ICS security architecture we implement a multiple layer strategy that includes firewalls, DMZs, intrusion detection, effective security policies, incident response mechanisms, and physical security.

What type of SCADA security strategy is this?

Correct!

- ⦿ Defense-in-Depth

- ○ Distributed Control Systems

- ○ Redundancy and Fault Tolerance

- ○ Authentication

Question 8   1 / 1 pts

When designing the ICS security architecture we organize the ICS devices into operational LANs, control LANS, and operational DMZs separate from the corporate LANs.

What type of SCADA security strategy is this?

○ Unidirectional Gateway

○ Intrusion Detection

○ Fault Tolerance

Correct!　　◉ Network Segmentation

Question 9

1 / 1 pts

When designing the ICS security architecture we make sure all connections between the control network and the corporate network are through a firewall.

What type of SCADA security strategy is this?

○ Incident Detection

○ Monitoring

○ Redundancy

Correct!　　◉ Network Segregation

Question 10   **1 / 1 pts**

When designing the ICS security architecture we establish user access privileges based on their role and their need to access the systems and networks.

What type of SCADA security strategy is this?

○ Redundancy and Fault Tolerance

○ Monitoring and Logging

Correct!   ● Authentication and Authorization

○ Network Segmentation and Segregation

Quiz Score: **10** out of 10