

Question 1

1.5 out of 1.5 points

A flaw or weakness in a system's design, implementation, or operation and management that could be exploited to violate the system's security policy is a(n) _____.

Selected Answer: ☒ Vulnerability

Answers: ☐ Threat

☐ Adversary

☐ Risk

☒ Vulnerability

Question 2

1.5 out of 1.5 points

The DES algorithm is primarily used to provide _____.

Selected Answer: ☒ Confidentiality

Answers: ☐ Key exchange

☐ Integrity

☐ Non-repudiation

☒ Confidentiality

Question 3

1.5 out of 1.5 points

MAC is used to achieve _____.

Selected Answer: ☒ Integrity

Answers: ☐ Confidentiality

☒ Integrity

Question 4

1 out of 1 points

True or False: Least privilege principle means users should be given full access and restrict their access when they misuse it.

Selected Answer: ☒ False

Answers: ☐ True

☒ False

Question 5

1.5 out of 1.5 points

_____ is a threat action that interrupts delivery of system services by hindering system operation.

Selected Answer: ☒ Obstruction

Answers: ☐ Falsification

☐ Incapacitation

☐ Corruption

☒ Obstruction

Question 6

1.5 out of 1.5 points

Consider this **block cipher** algorithm which encrypts data as **blocks of 3 bits** as shown in the table below:

encryption function

Input	output
000	010
001	011
010	100
011	101
100	110
101	111
110	000
111	001

Encrypt the following message (M) using the above algorithm using **Electronic Code Book (ECB)** mode where block size = 3
M= 010101110

Selected Answer:  100111000

Answers:  100111000

100101110

00011010

101010001

Question 7

1.5 out of 1.5 points

Consider the following general code for allowing access to a resource:

```
DWORD dwRet = IsAccessAllowed(...);  
if (dwRet == ERROR_ACCESS_DENIED)  
{  
    // Security check failed.  
    // Inform user that access is denied.  
} else {  
    // Security check OK.  
}
```

Which security principle does this code **violate**?

Selected Answer: ☒ Fail-safe defaults

Answers: ☐ Defense in depth

☐ Least privilege

☐ Need to know

☒ Fail-safe defaults