

### Question 1

4 / 4 pts

Select all that are related to the "Bell-LaPadula" access control strategy.

- ☐ Read down prohibited.
- ☒ Write up allowed.
- ☒ Read down allowed.
- ☐ ACE, SID.
- ☐ Certification and Enforcement Rules.
- ☐ Policy described by state transitions.
- ☐ Focuses on preserving data integrity.
- ☐ Files have attributes that describe read, write, and execute permissions.
- ☐ A system has a number of states, each with known properties.

### Question 2

1 / 1 pts

The root of the Bell-LaPadula access control model is their definition of security. Which of the following most closely matches that definition?

- ☐ Security is freedom from care, anxiety, or apprehension; absence of worry or anxiety; confidence in one's safety or well-being.
- ☐ Security is providing confidentiality, integrity, and access assurances .
- ☐ Security is the process of ensuring that an individual's data is available unaltered when needed.
- ☐ Security is the state or condition of being protected from or not exposed to danger; safety.
- ☒ Security is a system of classifications established by need-to-know.
- ☐ Security denotes the property of protection against compromise.

### Question 3

4 / 4 pts

In the Bell-LaPadula model, match the set with the semantics. You can find the answers to these questions in Bell and LaPadula's original paper.

Inputs, commands, requests of access to objects by subjects.

R ▼

Clearance level of a subject, classification of an object.

C ▼

Data, files, programs, subjects.

O ▼

Processes, programs in execution.

S ▼

Question 4

2 / 4 pts

Select all that are related to the "Biba" access control strategy

☐ Read down allowed.

☒ A system has a number of states, each with known properites.

☐ Files have attributes that describe read, write, and execute permissions.

☐ ACE, SID.

☒ Read down prohibited.

☐ Write up allowed.

☒ Focuses on preserving data integrity.

☐ Policy described by state transitions.

☐ Certification and Enforcement of rules.

Question 5

1 / 1 pts

The root of the Biba access control model is their definition of security. Which of the following most closely matches that definition?

☐ Security is the process of ensuring that an individual's data is available unaltered when needed.

☐ Security is providing confidentiality, integrity, and access assurances.

☒ Security denotes the property of protection against compromise.

☐ Security is a system of classifications established by need-to-know.

☐ Security is the state or condition of being protected from or not exposed to danger; safety.

☐ Security is freedom from care, anxiety or apprehension; absence of worry or anxiety; confidence in one's safety or well-being.

Question 6

4 / 4 pts

In the Biba model, match the set with the semantics. You can find the answers to these questions in Biba's original paper.

The set of integrity levels.

I

The set of subjects, the active, information processing elements of a computing system.

S

A function defining the integrity level of each subject and object.

II

The passive information repository elements of a computing system.

O

### Question 7

2 / 4 pts

Select all that are related to the "ACLs" access control strategy.

- ☒ A system has a number of states, each with known properties.
- ☐ Write up allowed.
- ☐ Read down allowed.
- ☐ Policy described by state transitions.
- ☐ Certification and Enforcement Rules.
- ☒ ACE, SID.
- ☒ Files have attributes that describe read, write, and execute permissions.
- ☐ Focuses on preserving data integrity.
- ☐ Read down prohibited.

### Question 8

4 / 4 pts

Match each term with the definition.

Describes access to a file or a program.

ACL ▼

An individual on the system.

SID ▼

What one person can do with one file.

ACE ▼

### Question 9

3 / 3 pts

Match the data type with the ACL data structure.

```
struct DataType
{
    SID sid;
    bool read;
    bool write;
};
```

ACE ▼

```
typedef int DataType;
```

SID ▼

```
typedef vector <ACE> DataType;
```

ACL ▼