

## 5. Securing Applications and Data

### Starter Quiz · 课前小测

AP Cybersecurity

Name: \_\_\_\_\_ Score: \_\_\_\_\_

1. Typing ' OR '1'='1 into a login field is a...
  - ☐ buffer overflow
  - ☐ SQL injection
  - ☐ XSS attack
  - ☐ directory traversal
2. "Allow access only during business hours" describes which model?
  - ☐ RBAC
  - ☐ RuBAC
  - ☐ DAC
  - ☐ MAC
3. Symmetric encryption uses...
  - ☐ two different keys
  - ☐ the same key to encrypt and decrypt
  - ☐ no key
  - ☐ a public key only
4. To send Bob an encrypted message, you use...
  - ☐ Bob's public key
  - ☐ Bob's private key
  - ☐ your private key
  - ☐ no key
5. "Secure by default" means a product ships with...
  - ☐ all security features off
  - ☐ security features already enabled
  - ☐ no security at all
  - ☐ a free gift
6. What single number sets owner read+write, group read, others none? (chmod \_\_\_\_)  
\_\_\_\_\_

7. Data validation checks that user input meets expected rules before processing.

☐ True ☐ False

8. The principle of least privilege gives each entity exactly the access it needs, no more.

☐ True ☐ False

9. A larger keyspace makes an encryption key harder to guess.

☐ True ☐ False

10. The private key must be kept secret and never shared.

☐ True ☐ False

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AP Cybersecurity

1. **SQL injection**

SQL control characters in input = **SQL injection**.

2. **RuBAC**

A **condition** (time) = **RuBAC**.

3. **the same key to encrypt and decrypt**

**Symmetric** = one shared key.

4. **Bob's public key**

Encrypt with the **recipient's public key**.

5. **security features already enabled**

**Secure by default** = safe out of the box.

6. **640**

6 (4+2), 4, 0 → **640**.

7. **True**

**Data validation** is the core defense.

8. **True**

**Least privilege** limits access to what is needed.

9. **True**

More possible keys = more guessing time.

10. **True**

Security rests on the **private key** staying secret.