

1.3 Best Practices for Public Networks

Name: _____ Class: _____ Date: _____

Total: 11 marks

KEY WORDS evil twin 双胞胎恶意热点 • access point 接入点 • wireless attacks 无线攻击
• encrypted 加密的 • jamming 干扰攻击

Objective

Build the skills to answer exam questions on adversary types and **wireless attacks** 无线攻击 on public networks.

You must be able to:

- classify adversaries by skill and **motivation** 动机
- describe wireless attacks: **evil twin** 双胞胎恶意热点, jamming, war driving
- recommend protections: verify the SSID, prefer HTTPS, use a **VPN** 虚拟专用网络

1 Worked examples

Study these first. Each one shows the method for a task used later.

■ Wireless attacks

An evil twin copies the real network name (SSID) so victims connect to the attacker's access point. Jamming floods the air with a signal to block access (a denial of service). War driving detects networks and where their signal leaks.

■ Encryption still protects you

On an evil twin, the adversary can read unencrypted traffic - but HTTPS sites stay encrypted, so your login is safe even on a fake access point.

2 Practice

2.1 Describe an **evil twin** attack in one or two sentences.

[2]

2.2 State two things a user can do to stay safe on public Wi-Fi. [2]

2.3 An attacker floods an area with a strong radio signal so no one can connect.

(a) Name this attack. [1]

(b) State the broader category of attack it belongs to. [1]

3 Exam-style questions

3.1 An adversary who buys ready-made tools online and reuses known exploits is best described as [1]

- | | |
|---|---|
| A | B |
| C | D |
- A** a highly skilled attacker
 - B** a low-skilled attacker
 - C** a security analyst
 - D** a system administrator

3.2 On an evil-twin network, which of your activities stays protected? [1]

- | | |
|---|---|
| A | B |
| C | D |
- A** visiting an HTTP site
 - B** visiting an HTTPS site
 - C** sending an unencrypted email
 - D** browsing over plain DNS

3.3 A café's Wi-Fi signal reaches the car park outside.

(a) Explain why this is a security concern. [2]

(b) State one control that reduces this exposure. [1]
