Final **(QUESTIONS CARRY 3 POINTS, ESSAY AND CALC QS CARRY 10 POINTS)**

True/False:

___ 1. Educational institutions were some of the first adopters of WLANs because of their dramatic advantages in teaching and learning.

___ 2. Security attacks are isolated against organizations.

___ 3. Promiscuous mode will not work on a WLAN.

___ 4. IEEE 802.11 WLANs have more collisions than wired Ethernet networks.

___ 5. A secure WLAN should use WEP for its encryption, although WPA may be required in older legacy equipment.

Multiple Choice

___ 6. In WEP, the ___ is a 24-bit value that changes each time a packet is encrypted.
   a. initialization vector (IV)
   b. pseudo-random number generator (PRNG)
   c. integrity check value (ICV)
   d. RC4

___ 7. ___ traffic is traffic destined for only one address.
   a. Severalcast
   b. Multicast
   c. Unicast
   d. Broadcast

___ 8. A more proactive approach than intrusion detection is a(n) ___.
   a. RF fingerprinting
   b. trilateration system
   c. RSSI system
   d. intrusion prevention system (IPS)

___ 9. ___ is the process of tracking the assets.
   a. Asset management
   b. Risk identification
   c. Threat management
   d. Vulnerability identification

___ 10. A(n) ___ policy should clearly address how passwords are managed.
   a. password management
   b. VPN
   c. acceptable use
   d. WLAN use

Completion

11. _____ uses the existing data WLAN to make and receive telephone calls.

12. The term _____ _____ is frequently used to describe the tasks of guarding information that is in a digital format.

13. _____ _____ are devices that combine access point, router, and network address translation features.

14. Certificates are issued by a trusted third party called a(n) _____ _____.

15. An SNMP _____ _____ acknowledges the message with an SNMP response.

Matching

___ 16. designed to provide the familiar applications from a desktop computer in a mobile format.

   a. Phishing
   b. Dumpster diving
   c. Handheld PC
   f. Omni-directional antenna
   g. Wireless Zero Configuration (WZC)
   h. IPSec

d. Mini PCI
e. Chipset
i. SNMP management station

___ 17. intended for settings in which an authentication server is unavailable.

a. Block cipher
b. Pre-authentication
c. WPA
d. WPA2
e. DHCP
f. Personal security model
g. AES-CCMP
h. Enterprise security model
i. RADIUS

___ 18. authentication system developed by the Massachusetts Institute of Technology (MIT).

a. Password
b. Digital certificates
c. Registration authority (RA)
d. Kerberos
e. PAP
f. MS-CHAP
g. Nonce
h. Group master key (GMK)
i. EAP

___ 19. UNIX-based command interface and protocol for securely accessing a remote computer.

a. CFS
b. Secure FTP (SFTP)
c. SSH
d. HTTPS
e. PPTP
f. IPsec tunnel mode
g. Endpoint
h. VPN Client
i. Layer 4-7 device

___ 20. a valuable tool used in threat modeling.

a. Data
b. Security policy
c. Security policy cycle
d. Attack tree
e. Risk assessment
f. Exposure Factor (EF)
g. Annualized Rate of Occurrence (ARO)
h. Code of ethics
i. Acceptable use policy (AUP)

Short Answer

21. What is the difference between active and passive monitoring?

22. What are the main characteristics of the Temporal Key Integrity Protocol (TKIP)?

23. (a) Jill is going to be sending a long message to Jack. And all they know about each other is the other party's public key, "PKA" for Jill and "PKB" for Jack. Create a conceptual framework from your thoughts in a form of a diagram to show how Jill should generate the message to be transmitted if they want to provide source authentication, non-repudiation, and confidentiality of message content. (there is negative points for missing or adding unneeded mechanisms.) (5 points)

(b) If Jill wants to send many long messages to Jack during a short period of time. And if all they know about each other is the other party's public key, What should they do to be more efficient than repeating the scenario in (a)? Describe your solution concisely, and then create diagrams (conceptual framework of your thoughts) to illustrate your protocol(s). (5 p) (there is negative points for missing or adding unneeded mechanisms.) (5 points)

24. a) Using the key below, decrypt the sentence below .
(note: some error detection and correction maybe required)

Merek uoayp behui pmbey kuohu ippat tehun er

Sub Key:

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
i	h	g	f	e	d	c	b	a	z	y	x	w	v	u	t	s	r	q	p	o	n	m	l	k	j

Answer:

b) explain some of the most widely used error correction and detection processes utilized in 802.11