

B5.3-R4: NETWORK MANAGEMENT AND INFORMATION SECURITY

NOTE:

1. Answer question 1 and any FOUR from questions 2 to 7.
2. Parts of the same question should be answered together and in the same sequence.

Time: 3 Hours

Total Marks: 100

1.
 - a) What are strong primes and are they necessary for the RSA system?
 - b) Write a note on Computer virus.
 - c) What is Risk? What are the objectives of performing risk management to enable the organization to accomplish its mission(s)?
 - d) What is the most significant difference between biometric and traditional technologies for authentication?
 - e) Which are the four primary classes of threats to network security? Explain each in detail.
 - f) Write a short note on Kerberos.
 - g) Explain block cipher in short.

(7x4)

2.
 - a) What are the advantages and disadvantages of public-key cryptography compared with secret-key cryptography?
 - b) Write a short note on “Network Security Policy: Best Practices”.

(10+8)

3.
 - a) What are the basic types of firewalls?
 - b) Explain MD5 and SHA1 algorithms.

(9+9)

4.
 - a) How secure is HTTPS today?
 - b) What are the motivations for Public Key Infrastructure?
 - c) Write a short note on secure digital signature.

(6+4+8)

5.
 - a) IEEE 802.11 specifies standard for wireless networking. Draw and explain protocol architecture of it.
 - b) Symbian OS is used in some Mobile phones as Operating System. What are the characteristics of Symbian OS?
 - c) WEP is the privacy protocol specified in IEEE 802.11 to provide wireless LAN users protection against casual eavesdropping. What are the weaknesses of WEP?

(6+6+6)

6.
 - a) Explain structure of Stream Cipher in detail.
 - b) Short note on: Firewall Design Principles.
 - c) How does SSL (Secure Socket Layer) certificates work?

(5+6+7)

7. Write a Short Note on following:
- a) What are types of DoS (Denial of Service) Attacks?
 - b) What are the benefits of IPSec?
 - c) Draw and explain SNMP architecture in detail.

(6+6+6)