TYBSCIT sem V Reg. Exam NOV-2018

Paper / Subject Code: 53601 / Network Security

(2½ hours) **[Total Marks: 75]**

N. B.: (1) **All** questions are **compulsory**.
(2) Make **suitable assumptions** wherever necessary and **state the assumptions** made.
(3) Answers to the **same question** must be **written together**.
(4) Numbers to the **right** indicate **marks**.
(5) Draw **neat labeled diagrams** wherever **necessary**.
(6) Use of **Non-programmable** calculators is **allowed**.

1. **Attempt *any two* of the following:** **10**
a. List and explain different types of criminal attacks. Give example of each one.
b. Explain with example different approaches to implement security model.
c. Write a short note on phishing.
d. Explain any two substitution techniques.

2. **Attempt *any two* of the following:** **10**
a. How subkey is generated for rounds of IDEA algorithm?
b. List different cryptography algorithm types. Explain with example.
c. Explain double DES algorithm.
d. Write the working of RC4 algorithm.

3. **Attempt *any two* of the following:** **10**
a. Write a short note on digital signature.
b. What is message authentication code? Write down disadvantages of hash-based message authentication code.
c. Differentiate between symmetric and asymmetric key cryptography.
d. Write down difference between MD5 and SHA-1.

4. **Attempt *any two* of the following:** **10**
a. How digital certificate is created.
b. List and explain PKIX services.
c. What is the need of self-signed certificate needed?
d. Explain different mechanism for protecting private keys.

5. **Attempt *any two* of the following:** **10**
a. List different email security protocols. Explain any one in detail.
b. Write a short note on electronic money.
c. How handshake protocol works?
d. What is firewall? Explain different types of firewall.

6. **Attempt *any two* of the following:** **10**
a. How does Kerberos work?
b. What is authentication token? Explain how it works. Also list different types of authentication token.
c. Explain any one security handshake mechanism.
d. Write the working of clear text password.

7. **Attempt *any three* of the following:** 15

a. What is virus? Write various phases of virus.
b. Explain Output Feedback algorithm mode.
c. Explain how MD5 works.
d. Write down the difference between online certificate revocation status checks and simple certificate validation protocol.
e. Differentiate between SSL and PLS.
f. Write a short note on smart cards.

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