

CRYPTOGRAPHY AND NETWORK SECURITY

( Code : CST-603 )

Full Marks : 70

Time : 3 hours

Answer any five questions

*Figures in the right-hand margin indicate marks*

1. (a) Define Pass word. Name the steps for authentication mechanism work. 2
- (b) Explain DES. Describe the board level steps in DES. 5
- (c) What is Firewalls ? Explain different types of Firewalls. 7
2. (a) What do you mean by Digital Signature ? Give example. 2
- (b) Describe the position of SSL in TCP/IP protocol suite with Diagram. 5

( Turn Over )

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- (c) Describe the Transposition techniques. 7
3. (a) Define Cryptography. 2
- (b) Write the comparison between Symmetric and Asymmetric key cryptography. 5
- (c) Explain Virtual Private Network. Describe VPN Architecture. 7
4. (a) What are the role of CA in Digital certificate. 2
- (b) Explain different principles of Security with example. 5
- (c) Define Authentication Tokens. How does this works ? Explain it. 7
5. (a) What is IP datagram ? 2
- (b) Explain Biometric Authentication. Describe how does Biometric work ? 5
- (c) What do you mean by Secure Electronic Transaction ? Explain the set process. 7

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6. (a) What do you mean by Biometric Authentication ? 2
- (b) Explain the PKIX services. 5
- (c) Explain the RSA algorithm. Describe the example of RSA. 7
7. (a) What do you mean by Trusted system ? 2
- (b) What is Encryption ? What is Decryption ? Draw a block diagram showing plain text, cipher text encryption and decryption. 5
- (c) What is Certificate-based Authentication ? Describe how does Certificate-based Authentication work ? 7