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[174]

SARDAR PATEL UNIVERSITY
M.Sc. (Information Technology) SEMESTER-III
PS03CINT23 – Information Security
Saturday, 27th October 2018

Time: 2:00 P.M. To 5:00 P.M.

Total Marks: 70

Q.1 Give answers of following Multiple choice questions: [8]

1. Each device in the internet must have a unique _____ address.
a. IP b. Default c. Gateway d. None of these
2. The _____ file is used for mapping IP addresses to host names.
a. /etc/services b. /etc/hosts c. /etc/networks d. /etc/protocols
3. Packet Filtering Firewalls works at the _____ layer of the OSI Model.
a. Application b. Network c. Physical d. TCP
4. _____ utility tests connectivity between two hosts
a. ping b. netstat c. ifconfig d. finger
5. _____ service is used to identify the true sender.
a. Integrity b. Authentication c. Authorization d. Confidentiality
6. VPN stands for _____.
a. Virtual Private Node b. Virtual Public Node
c. Virtual Private Network d. Virtual Public Network
7. SSL stands for _____
a. Socket Secure Layer b. Secure Socket Layer
c. Socket Security Layer d. Segment Secure Layer
8. Which of the following is not a type of firewall?
a. Circuit-level gateway b. User-level gateway
c. Application-level gateway d. packet filters

Q.2 Do as directed (Any Seven) [14]

1. Convert plain text "GOOD" into cipher text with caesar cipher with key = 3.
2. Main difference between IP spoofing and IP sniffing.
3. Give the full forms of PGP and TCP.
4. Define: Encryption, Decryption
5. List out general techniques that firewalls use to control access and enforce the site's security policy.
6. List at least two firewall software names.
7. Briefly explain any two features of windows server.
8. Explain various forms of Authentications are available under IIS.
9. Explain dig command in brief.

①

(PTO)

- Q.3 [A] Explain TCP/IP Daemons Administration Commands [6]
[B] Explain the architecture to Securing VPN in detail. [6]

OR

- [B] Explain network configuration files. [6]

- Q.4 [A] List firewall types. Explain advantages and disadvantages of each firewall type. [6]
[B] Explain PGP in detail. [6]

OR

- [B] Define: Firewall. Explain any one firewall type in detail. [6]

- Q.5 [A] Explain Intranet related features of Windows server. [6]
[B] Explain Proxy Server in brief and explain IIS Security features in detail [6]

OR

- [B] Explain how challenges and response mechanism works for Windows NT Logon? [6]

- Q.6 [A] Explain RSA algorithm with an example. [6]
[B] List symmetric key techniques. Explain any one technique in detail. [6]

OR

- [B] Define the following terms. [6]
Public key, Private key, Cryptography, Digital certificate, Cryptanalysis, Certificate Authority

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2