



BRAINWARE UNIVERSITY

Term End Examination 2018 - 19

Programme – M.Sc. in Hardware & Networking

Course Name - CISCO Security

Course Code – MHN304B

(Semester – 3)

Time allotted: 3 Hours

Full Marks: 70

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group –A

(Multiple Choice Type Question)

10 x 1 = 10

1. *Choose the correct alternative from the following*
 - (i) Which type of an attack involves lying about the source address of a frame or packet?
 - a. Man-in-the-middle attack
 - b. Denial-of-Service attack
 - c. Reconnaissance attack
 - d. Spoofing attack
 - (ii) Netflow provides which of the followings?
 - a. Detailed data about each packet on the network
 - b. Troubleshooting messages about the networking devices
 - c. Information on the types of traffic traversing the network
 - d. None of these
 - (iii) A remote user needs to access the corporate network from a hotel room from a laptop. What type of VPN is used for this?
 - a. Site-to-Site
 - b. Dial-up VPN
 - c. PPP VPN
 - d. Remote-access VPN
 - (iv) What is used to encrypt the hash in a digital signature?
 - a. Sender's public key
 - b. Sender's private key
 - c. Receiver's public key
 - d. Receiver's private key

- (v) What is the default number of MAC addresses allowed on a switch port that is configured with port security?
 - a. 1
 - b. 1
 - c. 15
 - d. 15
- (vi) What is the key component used to create a digital signature?
 - a. Ink
 - b. Public Key
 - c. Private Key
 - d. AES
- (vii) Which is the primary Layer-2 mechanism that allows multiple devices in the same VLAN to communicate with each other even though those devices are physically connected to different switches?
 - a. IP address
 - b. Default Gateway
 - c. Trunk
 - d. 802.1D
- (viii) When implemented, which of the following helps prevent CAM table overflow?
 - a. 802.1w
 - b. BPDU guard
 - c. Root guard
 - d. Port security
- (ix) What is a typical method used by a device in one VLAN to reach another device in a second VLAN?
 - a. ARP for the remote device's MAC address
 - b. Use a remote default gateway
 - c. Use a local default gateway
 - d. Use trunking on the PC
- (x) What is the default policy between an administratively created zone and the self-zone?
 - a. Deny
 - b. Permit
 - c. Inspect
 - d. Log

Group – B

(Short Answer Type Questions)

3 x 5 = 15

Answer any *three* from the following

2. Write a short note on 'Brute-force Attacks' and 'Botnet'. [5]
3. Why do you use 'Access Control Server (ACS)'? [5]
4. Differentiate between Data Center and SOHO. [5]
5. Briefly explain the roles of 'Ciphers' and 'Keys'. [5]
6. Briefly explain the merits of digital signature. [5]

Group – C

(Long Answer Type Questions)

3 x 15 = 45

Answer any *three* from the following

7. (a) What are the methods available for ‘Malware’ identification? [8]
- (b) Discuss the different categories of ‘Distributed Denial-of-Service (DDoS)’ attacks. [7]
8. (a) How does the ‘Spanning Tree Protocol (STP)’ prevent the Layer-2 loop? [8]
- (b) What are the business reasons driving the need for BYOD solution? [7]
9. (a) Briefly explain ‘Secure Socket Layer (SSL) Protocol’. [5]
- (b) Discuss – ‘Cisco Discovery Protocol (CDP)’. [5]
- (c) What is the role of ‘VLAN Trunking’ in VLAN configuration? [5]
10. (a) Briefly explain ‘DHCP Snooping’. [5]
- (b) How does the ‘Port Security’ control the number of MAC addresses, which can be learned on a single switch port? [5]
- (c) What is the role of ‘VLAN1’ in VLAN configuration? [5]
11. (a) Explain the term ‘Authentication Authorization Accounting and auditing (AAA)’. [8]
- (b) Differentiate between ‘Stateful Inspection’ and ‘Application Inspection’. [7]
