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| **Assignment module 6: Network Security, Maintenance, and Troubleshooting**  **Procedures** | |  |
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| **Section 1: Multiple Choice** |  | |

**LAKSHY JAIN**

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| 1. What is the primary purpose of a firewall in a network security infrastructure? | |
|  | **Ans: Filtering and controlling network traffic** |
| 2. What type of attack involves flooding a network with excessive traffic to disrupt  normal operation? | |
|  | **Ans: Denial of Service (Dos)** |
| 3. Which encryption protocol is commonly used to secure wireless network  communications? | |
|  | **Ans: WPA (Wi-Fi Protected Access**) |
| 4. What is the purpose of a VPN (Virtual Private Network) in a network security context?  **ANS: Encrypting network traffic to prevent eavesdropping** | |

**Section 2: True or false**

**Section 3: Short**

True or False: Patch management is the process of regularly updating software and firmware to address security vulnerabilities and improve system performance.

**Ans: True**

True or False: A network administrator should perform regular backups of critical data to prevent data loss in the event of hardware failures, disasters, or security breaches.

**Ans: True**

True or False: Traceroute is a network diagnostic tool used to identify the route and measure the latency of data packets between a source and destination device.

**Ans: True**

8. Describe the steps involved in conducting a network vulnerability Assignment.

Ans: **There are steps to performing a vulnerability assessment, which includes: Conducting risk identification and analysis. Developing vulnerability scanning policies and procedures. Identifying the type of vulnerability scan.**

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| 9. Demonstrate how to tro | ubleshoot network connectivity issues using the |
| ping command.  **Ans: To troubleshoot network connectivity issues using the ping command, you can:**  **Open a command prompt:**  **On Windows, click Start, then Run, type cmd, and press Enter**  **On macOS or Linux, open the Terminal**  **Enter the ping command:**  **Type ping followed by the IP address or hostname of the device you want to ping**  **For example, to ping a device with the IP address 192.168.1.1, type ping 192.168.1.1 and press Enter**  **Interpret the results:**  **If the device responds, you'll see a series of responses**  **If the device doesn't respond, you might see "Request timed out" or "Destination host unreachable" messages** | |

#### Section 5:

10. Discuss the importance of regular network maintenance and the key tasks involved in maintaining network infrastructure.

**Ans: Regular preventative maintenance for a network is a proactive approach to avoid potential issues and ensure optimal performance. This involves scheduling regular checks for hardware and software, updating security protocols to protect against new threats, and optimizing network settings for improved efficiency.**