Assignment module 6: Network Security, Maintenance, and Troubleshooting Procedures

Section 1: Multiple Choice

1. What is the primary purpose of a firewall in a network security infrastructure?

Ans. b) Filtering and controlling network traffic.

2. What type of attack involves flooding a network with excessive traffic to disrupt normal operation?

Ans. a) Denial of Service (DoS)

3. Which encryption protocol is commonly used to secure wireless network communications?

Ans. b) WPA (Wi-Fi Protected Access)

4. What is the purpose of a VPN (Virtual Private Network) in a network security context?

Ans. A VPN (Virtual Private Network) creates a secure, encrypted connection over the internet to protect data and enhance privacy

Section 2: True or false

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

Ans. True

6. 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

7. 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

Section 3: Short Answer

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

Define Scope: Decide what parts of the network you'll assess.

Gather Information: Collect details about the network (IP addresses, devices, etc.).

Identify Vulnerabilities: Use tools to find security weaknesses.

Analyze Risks: Determine which vulnerabilities are most critical.

Report Findings: Document the vulnerabilities and how to fix them.

Fix Vulnerabilities: Implement the recommended fixes.

Verify Fixes: Check to make sure the vulnerabilities are resolved.

Monitor Continuously: Regularly check for new vulnerabilities.

Section 4: Practical Application

9. Demonstrate how to troubleshoot network connectivity issues using the ping command.

Ans. Done

Section 5: Essay

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

Ans. Done

1. Which of the following best describes the purpose of a VPN (Virtual Private Network)?

Ans. a) Encrypting network traffic to prevent eavesdropping