Assignment: module- 5 Network Fundamentals and Building Networks

Section 1: Multiple Choice

1. What is the primary function of a router in a computer network?

Ans-> Forwarding data packets between networks

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

Ans-> Denial of Service (DoS)

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

Ans-> WPA ( Wi-Fi Protected Access)

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

Ans-> Encrypting network traffic to prevent eavesdropping

Section 2: True or False

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

Ans-> True

6. 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. 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

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

Ans-> There are some steps that involved in conducting a network vulnerability are as follow:-

a. In first step, Planning and preparation for that work.

b. In the second step, asset a discovery for the network mapping by use of some tools on it.

c. In the third step, a proper vulnerability analysis for the categorize a thing that we do in group vulnerabilities based on type.

d. In this fourth point, to reporting for everything we do in it.

e. In the fifth step, to identification of the vulnerability.

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

Ans-> There are some step of troubleshoot connectivity issues using the ping command are as follow:-

a. In first step, we will see the basic connectivity test to the host or we see ping in the local IP address.

b. In the second step, we see ping in the gateway, so we give command ‘ipconfig’(Windows) or ‘ipconfig’/’ip a’ (Linux/Mac).

c. In the third step, the ping in a domain name.

d. In the fourth step, to analyzing ping.

e. In the fifth step, to see troubleshooting based on results.

f. And in the last step ate seventh, to set ping in the advanced option.

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

Ans-> Importance of regular network maintaince:-

a. Enhanced security

b. Improved performance

c. Minimized downtime

d. Cost savings

e. Compliance and reporting

. Key tasks involved in maintaining network infrastructure:-

a. Monitoring and performance management

b. Security management

c. Configuration management

d. Backup and recovery

e. Firmware and software updates

f. Hardware maintenance

g. Documentation and reporting

h. Use management and access control

i. Capacity Planning and scalability

j. Vendor and support management