**Module 6**: Network Security, Maintenance, and Troubleshooting Procedures….

**Ans :- 1** b) Filtering and controlling network traffic

**Ans :- 2** a) Denial of Service

**Ans :- 3** b) WPA (Wi-Fi Protected Access)

**Ans :- 4** A VPN (Virtual Private Network) creates a secure, protecting your online privacy and allowing secure access to networks from anywhere.

**Ans :- 5** True.

**Ans :- 6** True.

**Ans :- 7** True.

**Ans :- 8** There are few step to involed in conducting a network vulnerability assignment like this , Scope Definition, Information Gathering/Discovery, Vulnerability Scanning, Analysis and Prioritization, and so on. **Scope Definition** :- Identify which systems, networks, and applications will be assessed, and define the goals. **Information Gathering/Discovery** :- Map the network, identify active devices, operating systems, services, and applications.

**Ans :- 9** In, computer so many types of troubleshooting tools and trick in systems but here we are explain ping command in CMD. 1) open cmd in through press windows + r , type cmd, 2) write PING in cmd if reply from 192.168.20.1…… , so your connection is successful but your pc not responding like this Request timed out then destination unreachable or blocked in that case we need to check cable, ip address. Another problem when you type such as Destination host unreachable means route don’t know local pc so we can check gateway. Why it is so important because this can inform you to the your computer is working good and check device availability, identify router problem if not working properly. It is the first step in network troubleshooting before checking cables, IP settings, or routing issues.

**Ans :- 10** now days people are just using network but not maintaining that but when netwok is shutdown that time they know how important to maintaining network because their repair cost to much and cant affordable so few step to maintain your network such as, ensure network reliability, improve performance, increase security, reduce cost and so on. Reduce cost:- Preventive maintenance reduces the chances of big issues that may need costly repairs. Improves Performance:- By monitoring traffic and fixing traffic jam, the network can run faster and smoother. Enhances Security:- Keeping systems updated protects the network from viruses, malware, and cyber-attacks. Their few step to do for maintain network Regular Software Updates :- Keeps routers, switches, and firewalls up to date with latest security patches. Monitoring Network Traffic :- Helps detect unusual activity, unauthorized access. Security notification :- Checks firewalls, antivirus, and access controls to maintain network safety. Hardware Inspection :- Ensures cables, switches, and routers are physically working well.