**LAKSHY JAIN**

**Assignment module 4: Troubleshooting and**

**Section 1: Multiple Choice**

1. **What is the first step in the troubleshooting process?**

Ans. Identifying the problem

1. **Which of the following tools is commonly used to diagnose hardware issues by testing electrical connections?**

Ans. Multimeter

1. **Which Windows utility can be used to view system logs, monitor performance, and diagnose hardware and software issues?**

Ans. Event Viewer

**Section 2: True or False**

1. **True or False: Safe Mode is a diagnostic mode in Windows that loads only essential system services and drivers, allowing users to troubleshoot and fix problems with the operating system.**

Ans. True

1. **True or False: A system restore point is a snapshot of the computer's system files, registry, and configuration settings at a specific point in time, which can be used to revert the system to a previous state if problems occur.**

Ans. True

1. **True or False: Ping is a command-line utility used to test network connectivity by sending ICMP echo requests to a target device and waiting for ICMP echo replies.**

Ans. True

**Section 3: Short Answer**

1. **Describe the steps involved in troubleshooting a computer that fails to boot into the operating system.**

Ans. Step 1: Disconnect External Devices. ...

Step 2: Perform a Hard Reset.

Step 3: Verify BIOS Settings.

Step 4: Run Dell Diagnostics.

Step 5: Repair Windows Startup Files.

Step 6: Repair Windows Using Support Assist OS Recovery.

**Section 4: Practical Application**

1. **Demonstrate how to troubleshoot network connectivity issues on a Windows computer using the ipconfig command.**

Ans. To troubleshoot network connectivity issues on a Windows computer using the ipconfig command, you can:

Open the Command Prompt by typing cmd in the Start menu or by pressing Windows key + R to open the Run window and typing cmd

Type ipconfig to see information about your network adapters, including your IP address and default gateway

If your IP address starts with 169, your computer isn't receiving a valid IP address

To fix this, type ipconfig /release to get rid of your current IP address and then type ipconfig /renew to request a new one

If you still can't get a valid IP address, try connecting your computer to your modem with an ethernet cable

If you can connect to the internet with the ethernet cable, the problem is with your router

If you can't connect to the internet with the ethernet cable, you can try other troubleshooting steps

You can also use the ipconfig /flushdns command to clear the DNS resolver cache and force the system to re-query DNS servers for updated information.

**Section 5: Essay**

1. **Discuss the importance of effective communication skills in a helpdesk or technical support role.**

Ans. It's the key to building trust, resolving issues efficiently, and ultimately ensuring customer satisfaction. By mastering these communication strategies and embracing a commitment to continuous improvement, Technical Support Engineers can elevate their support game and excel in their roles.