

## **Assignment module 4: Troubleshooting and Helpdesk**

### **Section 1: Multiple Choice**

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

**Ans:** - b) Identifying the problem

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

**Ans:** - c) Multimeter

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

**Ans:** - c) Event Viewer

## **Section 2: True or False**

**4. 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**

**5. 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**

**6. 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**

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

**Ans: -**

1. Check the power supply - make sure your computer is connected and the power supply works.
2. Listen to pipe code - Pay attention to beeps or LED indicators that may indicate hardware problems.
3. Check the screen output - confirm that the screen works and is well connected.
4. Disconnect external devices - Remove USB drive or external devices that can interfere with boot.
5. Access BIOS/UEFI - If the system detects a hard drive, enter the BIOS/UEFI to confirm it.
6. Start in safe mode or recovery - Try to boot in safe mode or use the recovery option.
7. Run Startup Repair - Use Windows Installation Media or Recovery Tools to repair your boot.
8. Look for error messages mark any messages on the clues for errors.
9. Test hardware components - Check RAM, hard drive and other fault hardware.
10. Restore or restore OS - if necessary, restore the system or restore the operating system.

## Section 4: Practical Application

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

**Ans: -**

Open Command Prompt:

- Press Windows + R, type CMD and press Enter.
- Check IP configuration:
- Write Ipconfig and press Enter.
- Provide details such as IPV4 addresses, subnet masks and standard Gateways that your computer has a valid IP address.
- Release and renewal -ip address (for DHCP issues):
- Type IPCONFIG /RELEASE AND RECONFIGURE ENTER.
- Then type IPCONFIG /RENEW and press Enter.
- This will update the IP address from the DHCP server.
- Flush DNS Cache (if DNS's editions):
- Write IPCONFIG /FLUSHDNS and press Enter.
- This cleans the old DNS post from local cache.
- Check the network interface:
- Use IPCONFIG /EVERYTHING to see detailed network adapter information including Mac addresses and DHCP status.

## **Section 5: Essay**

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

**Ans: -**

Effective communication skills are required in a help desk or technical support role, as they enable technicians to understand user problems clearly, interpret technical solutions with simple words and create self-confidence with users. Good communication ensures accurate exchange of information, reduces misunderstandings and improves the general support experience. It also helps to document problems, collaborate with team members and offer professional and sympathetic service, which improves customers' satisfaction and problem-solving efficiency.