

Assignment module 4: Troubleshooting

Section 1: Multiple Choice

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

- a) Implementing a solution**
- b) Identifying the problem**
- c) Testing the solution**
- d) Documenting the solution**

Ans :- b) Identifying the problem

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

- a) Loopback plug**
- b) Toner probe**
- c) Multimeter**
- d) Cable tester**

Ans :- c) Multimeter

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

- a) Task Manager**
- b) Device Manager**
- c) Event Viewer**
- d) Control Panel**

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 :-

- Verify power supply and hardware connections.
- Check POST messages/beep codes for hardware errors.
- Enter BIOS/UEFI to confirm boot device settings.
- Try booting into Safe Mode or Recovery Mode.
- Run Startup Repair, System Restore, or use command-line tools (chkdsk, sfc, bootrec).
- Test hardware components (RAM, HDD/SSD).
- If unresolved, back up data and reinstall the operating system.

Section 4: Practical Application

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

Ans :-

1. Open Command Prompt

- Press Win + R, type cmd, and press Enter.

2. Check Current IP Configuration

- Type ipconfig and press Enter.
- Verify details like IP address, subnet mask, and default gateway.

3. Check if IP Address is Assigned

- If you see 169.254.x.x, it means the computer did not receive a valid IP address from the DHCP server.

4. Release and Renew IP Address

- Type:
- ipconfig /release
- ipconfig /renew
- This forces the system to request a new IP from the DHCP server.

5. Clear DNS Cache (if website issues persist)

- Type:
- ipconfig /flushdns

6. Test Connectivity

- After renewing, type ipconfig again to confirm new settings.
- Then use ping (e.g., ping 8.8.8.8) to verify internet connectivity.

Section 5: Essay

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

Ans :- Importance of Effective Communication Skills in Helpdesk/Technical Support:

1. Clear Problem Understanding

- Helps in accurately understanding the user's issue and avoiding misdiagnosis.

2. Efficient Troubleshooting

- Explaining steps clearly ensures users can follow instructions and resolve issues faster.

3. Customer Satisfaction

- Polite, patient, and professional communication builds trust and improves user experience.

4. Avoids Miscommunication

- Reduces errors caused by misunderstood instructions or technical jargon.

5. Team Collaboration

- Helps in sharing information with colleagues or escalating issues properly.

6. Documentation and Reporting

- Clear communication ensures accurate recording of problems, solutions, and follow-ups.