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# Assignment – Module 4: Troubleshooting and Helpdesk

**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

* You must understand the issue clearly before fixing it.

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

* It tests electrical values like voltage, current, and resistance.

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

* **Event Viewer** is the Windows utility used to view system logs and diagnose issues.

**Section 2: True or False**

4. 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. 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. 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 power** – Make sure the computer is getting power and turns on properly.
2. **Listen for beep sounds** – If you hear beeps when turning it on, it may mean there’s a hardware problem.
3. **Check wires and screen** – Ensure the monitor, keyboard, and all cables are connected properly.
4. **Open BIOS/UEFI** – Press keys like F2 or DEL during startup to see if the system detects the hard drive.
5. **Remove USB or CD** – Unplug any USB drives or CDs that might stop Windows from loading.
6. **Try Safe Mode** – Press F8 (or hold Shift while restarting) to open Safe Mode and check for software issues.
7. **Use Startup Repair** – Use Windows recovery tools to automatically fix boot problems.
8. **System Restore** – Go back to an earlier time when the computer was working fine.
9. **Check hardware** – Test hard disk and RAM to see if they are damaged.
10. **Reinstall Windows** – If nothing works, you may need to 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 Windows + R, type cmd, and press Enter to open the command window.
2. Check IP Address (ipconfig) – Type ipconfig and press Enter to see your IP details. Check if your computer has a valid IP address.
3. Release IP (ipconfig /release) – Type ipconfig /release to remove the current IP address.
4. Renew IP (ipconfig /renew) – Type ipconfig /renew to ask the router for a new IP address.
5. Flush DNS (ipconfig /flushdns) – Type ipconfig /flushdns to clear old DNS cache, helpful if websites are not loading.
6. Test the Connection Again – After running these commands, open a website or use ping google.com to check if the internet is working.

**Section 5: Essay**

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

Ans :-

1. Understand the Problem – Good listening helps to fully understand the user’s issue.
2. Explain Clearly – Use simple words so the user can easily follow the steps.
3. Keep Users Calm – Polite and friendly communication reduces user stress.
4. Avoid Confusion – Clear instructions save time and prevent mistakes.
5. Work with Team – Sharing updates clearly helps the team solve issues faster.
6. Write Clear Notes – Proper records help others know what was done and why.