**Assignment Module 4 : A+ - 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**

1. 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**

1. 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**

1. 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. 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. 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 -4 Short Answer**

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

**Ans :**

* First check the power, plug and battery are properly connected and if the computer turns on.
* Show for POST, check computer hardware that RAM, CPU, graphics if any problem that show error and beep sound.
* Go to Bios and check boot order and if HDD/SDD and RAM are detected.
* Read error message if hardware or OS problem then check hardware , reset RAM, verify HDD/SDD connection & disconnect extra devices.
* Boot from USB to check if os is corrupt.
* Repair OS using startup repair or check commands like chdsk(for disk check), sfc /scannow(check sysem files), bootrec(fix boot record)
* Use System restore or reinstall the OS if repair not work.
* After the OS starts, check if the problem comes back replace hardware if it does.

**Section 4: Practical Application**

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

**Ans:**

* Press win+r and type cmd , then it’s open command prompt.
* Check ip configuration , Type- ipconfig that show ipv4 address, subnet mask, Default Gateway.
* If ipv4 show 169.254.x.x that means Pc isn’t getting an ip from the router –it’s a network issue.
* Type ipconfig /release(removes current ip), ipconfig /renew (request new ip from router).
* If ipv4 is correct then type ipconfig /all(show DNS server,MAC address) .
* Ping router → ping <Gateway IP> (check local network).
* Ping website → ping google.com (check internet).
* Fix base on problem- : IP issue → renew, local network issue → cables/router, internet issue → DNS/ISP.

**Section 5: Essay**

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

**Ans :**

* Helpdesk staff solve users’ problems, so it’s important to **understand issues clearly** and **explain solutions in simple words**. Not all users are technical, so clear communication avoids confusion.
* Being **polite, patient, and calm** builds trust and makes users feel supported. Asking the **right questions** and giving clear instructions helps **solve problems faster**. Good written communication in emails or chat also avoids mistakes.
* **It also helps solve problems faster.** Asking the right questions and giving clear instructions saves time. Writing clearly in emails or chat is also important to avoid misunderstandings.