 **Assignment : - 1**

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**Module 3 :- Understanding and Maintenance of**

**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

**Note**:- Because until the problem is known, it is difficult to solve 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

**Note:-** Because Multimeter is measure output voltage power supply

**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

**Note:-** because Event viewer is all performance and all mange the software and hardware issue.

**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 Power and Connections:

2. Listen for Beep Codes: If applicable, note any BIOS beep codes which may indicate hardware issues.

3. Inspect Hardware Components:

4. Access BIOS/UEFI: Restart and enter BIOS (often by pressing Del, F2, or Esc) to confirm the system detects all hardware.

5. Check Boot Order

6. Run Safe Mode: Try booting into Safe Mode (usually F8 or Shift+F8) to isolate software issues.

7. Run System Repair Tools: Use built-in tools like Startup Repair from a Windows installation USB or recovery drive.

8. Consider OS Reinstallation: If issues persist, 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 Win + R, type cmd, and press Enter.

2. Run ipconfig: Type ipconfig and press Enter to display network configuration details.

3. Check IP Address: Look under your network adapter for an IP address. If it shows 169.254.x.x, it indicates a connectivity issue.

4. Release IP Address: Type ipconfig /release and press Enter to clear the current IP address.

5. Renew IP Address: Type ipconfig /renew and press Enter to request a new IP from the DHCP server.

6. Check Connectivity: Type ping www.google.com to test internet connectivity.

7. Flush DNS Cache (if needed)

8. Review Results:

**Section 5: Essay**

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

**Ans:-** Effective communication skills are crucial in helpdesk and technical support roles because they enable support staff to clearly explain solutions, listen to customer issues, and build trust. Good communication helps reduce misunderstandings, speeds up problem resolution, and ensures customers feel supported and valued. Additionally, the ability to translate technical jargon into simple terms allows for a smoother interaction, even with non-technical users, enhancing customer satisfaction and overall service quality.