Troubleshooting Network Issues in the Office

Part 1: Office Roleplay Dialogue

Scenario: An employee, Michael, contacts the IT technician, Rachel, because the office internet is slow and users are experiencing frequent disconnections.

Michael: Hi Rachel, the internet has been really slow today, and some of us keep getting disconnected. Can you check what's going on?

Rachel: Sure, let me run some tests. High **latency** could be the issue. Latency refers to the delay in data transmission, which can make the internet feel sluggish.

Michael: That makes sense. Is there a way to measure it?

Rachel: Yes, I'll send a **ping** request to a server. If the response time is too high, it means there's significant delay in the connection.

Michael: Got it. Could this be caused by too many people using the network?

Rachel: Possibly, but I'll check the router settings first. I need to verify the **IP address** and **subnet mask** to make sure there are no conflicts. If multiple devices are trying to use the same IP address, it could cause connectivity problems.

Michael: I see. What about websites that won't load? Some pages just aren't opening at all.

Rachel: That could be a **DNS (Domain Name System)** issue. The DNS translates website names into IP addresses. If the DNS server is slow or down, some websites might not load properly.

Michael: Is there a way to fix that?

Rachel: Yes, I can try switching to a different DNS server, like Google's public DNS, to see if that helps. I'll also restart the router and check for firmware updates.

Michael: That sounds good. I hope this speeds things up.

Rachel: It should. I'll monitor the connection for a while and see if the latency improves. Let me know if you notice any changes!

Michael: Will do. Thanks, Rachel!

Part 2: Comprehension Questions

1. What is the main issue Michael is experiencing?

(A) His computer won't turn on

(B) The internet is slow and disconnecting users

(C) He forgot his password

(D) The office printer isn't working

2. What does Rachel use to measure latency?

(A) A speed test website

(B) A power cable

(C) A ping request

(D) A firewall

3. What is the purpose of a DNS server?

(A) It translates website names into IP addresses

(B) It blocks internet access

(C) It stores all company passwords

(D) It increases Wi-Fi speed

4. Why does Rachel check the subnet mask?

(A) To see if there are IP address conflicts

(B) To change internet providers

(C) To update the office Wi-Fi password

(D) To install new software

Part 3: Key Vocabulary Definitions in Japanese

1. **Latency (遅延)** – データが送信されてから受信されるまでの時間の遅れ。インターネットの応答速度に影響する。

2. **IP Address (IP アドレス)** – ネットワーク上でデバイスを識別するための一意の番号。

3. **Subnet Mask (サブネットマスク)** – ネットワークの範囲を決定するためのアドレス情報。IP アドレスの管理に使用される。

4. **DNS (Domain Name System) (ドメインネームシステム)** – ウェブサイトの名前を IP アドレスに変換し、インターネットアクセスを可能にするシステム。

5. **Ping (ピング)** – サーバーやデバイスとの通信速度や接続状態を確認するためのネットワークテストコマンド。

Part 4: Answers

1. What is the main issue Michael is experiencing?

✅ (B) The internet is slow and disconnecting users

2. What does Rachel use to measure latency?

✅ (C) A ping request

3. What is the purpose of a DNS server?

✅ (A) It translates website names into IP addresses

4. Why does Rachel check the subnet mask?

✅ (A) To see if there are IP address conflicts