***Wan Technologies***

***Let's break down the questions into their respective levels of difficulty and provide concise explanations:***

***### Beginner Questions***

***\*\*1. Fiber-optic communication\*\****

***- Fiber-optic communication uses thin strands of glass or plastic (fibers) to transmit data using light pulses. It offers high bandwidth and is less susceptible to electromagnetic interference compared to traditional copper wires.***

***\*\*2. What is Leased Line?\*\****

***- A leased line is a dedicated communication line rented by a telecommunications service provider to a customer. It provides a fixed bandwidth, typically used for private data networking, internet access, or connecting remote offices.***

***\*\*3. Explain Circuit Switching\*\****

***- Circuit switching is a communication method where a dedicated communication path is established between two nodes before they can communicate. It maintains this dedicated path for the duration of the communication session, such as a phone call. Traditional telephone networks use circuit switching.***

***### Intermediate Questions***

***\*\*1. Explain Packet Switching\*\****

***- Packet switching is a method of network communication where data is broken down into small packets, which are individually routed across a network based on destination address. Packets can take different paths to reach the destination and are reassembled at the receiving end. The Internet primarily uses packet switching.***

***\*\*2. What is the difference between leased line and broadband?\*\****

***- Leased lines provide dedicated, symmetric bandwidth (same upload and download speeds) for exclusive use by the customer. Broadband typically refers to shared, asymmetric connections (higher download than upload speeds) that are cheaper and usually delivered over existing telephone lines or cables.***

***\*\*3. How much is a 100mb Leased Line?\*\****

***- Pricing for a 100 Mbps leased line can vary significantly depending on location, provider, and contract terms. Generally, costs can range from hundreds to thousands of dollars per month, with installation fees and service level agreements influencing the total expense.***

***### Advanced Questions***

***\*\*1. Difference between a POTS line and a leased line?\*\****

***- A POTS (Plain Old Telephone Service) line is a traditional analog telephone line typically used for voice communication. It provides basic connectivity but lacks the bandwidth and dedicated nature of a leased line, which offers higher speeds and is used for data-intensive applications.***

***\*\*2. What is the process of packet switching?\*\****

***- In packet switching, data is divided into packets at the sender's end. Each packet includes a header with destination information. The packets are then transmitted over the network, where routers determine the best path for each packet based on the destination address. At the receiver's end, packets are reassembled into the original data.***

***\*\*3. Difference between circuit switching and packet switching?\*\****

***- Circuit switching establishes a dedicated communication path between two nodes for the entire duration of the communication session, while packet switching breaks data into packets that are individually routed across the network based on destination address. Circuit switching guarantees constant bandwidth but can be inefficient for bursty data. Packet switching allows shared use of network resources but can be more efficient overall.***

***\*\*4. Practice on printer sharing\*\****

***- Printer sharing involves making a printer connected to one computer accessible to other computers on a network. This can be done through operating system settings (e.g., Windows printer sharing) or using network print servers. Shared printers can be accessed by other users for printing documents remotely.***

***\*\*5. Use of IIS (Via "add and remove" feature from control panel. "appwiz.cpl" command)\*\****

***- IIS (Internet Information Services) is a Windows feature used to host and manage web applications, websites, and services. It can be installed or managed through the "Add or Remove Programs" feature (appwiz.cpl command in Run dialog). This allows users to enable or disable IIS components, manage server features, and configure web services on a Windows server or workstation.***

***These explanations should provide a comprehensive overview of the topics mentioned at different levels of difficulty.***