Sure, let's compare circuit-switched, packet-switched, and virtual circuit-switched networks based on the specified points:

### Route Followed by Packets:

1. \*\*Circuit-Switched Networks:\*\*

- Dedicated path established during the entire communication.

- Fixed route for the duration of the call.

2. \*\*Packet-Switched Networks:\*\*

- Packets may take different routes to reach the destination.

- Dynamic routing based on network conditions.

3. \*\*Virtual Circuit-Switched Networks:\*\*

- Combination of both circuit-switching and packet-switching.

- Initial setup like circuit-switching, but data transfer like packet-switching.

### Availability of Bandwidth:

1. \*\*Circuit-Switched Networks:\*\*

- Reserved bandwidth for the entire duration of the call.

- Dedicated resources, whether in use or not.

2. \*\*Packet-Switched Networks:\*\*

- Bandwidth is shared among multiple users.

- Efficient use of bandwidth, shared dynamically.

3. \*\*Virtual Circuit-Switched Networks:\*\*

- Bandwidth reserved during the virtual circuit setup.

- Shared among users during data transfer.

### Wastage of Bandwidth:

1. \*\*Circuit-Switched Networks:\*\*

- Potential for wastage as dedicated resources are reserved.

- Unused bandwidth cannot be utilized by other calls.

2. \*\*Packet-Switched Networks:\*\*

- More efficient as bandwidth is dynamically allocated.

- Reduced wastage compared to circuit-switching.

3. \*\*Virtual Circuit-Switched Networks:\*\*

- Intermediate level of efficiency.

- Wastage during circuit setup, but more efficient during data transfer.

### Connection Setup:

1. \*\*Circuit-Switched Networks:\*\*

- Connection setup is required before data transfer.

- Dedicated path established for the entire call duration.

2. \*\*Packet-Switched Networks:\*\*

- No dedicated setup required; packets are sent independently.

- Connectionless; each packet can take a different route.

3. \*\*Virtual Circuit-Switched Networks:\*\*

- Initial setup like circuit-switching for reserved bandwidth.

- Data transfer similar to packet-switching.

### Congestion:

1. \*\*Circuit-Switched Networks:\*\*

- Low congestion as resources are dedicated per call.

- High potential for blocking if all resources are in use.

2. \*\*Packet-Switched Networks:\*\*

- Moderate congestion depending on network load.

- Packets can be delayed or lost during heavy traffic.

3. \*\*Virtual Circuit-Switched Networks:\*\*

- Moderate congestion during data transfer.

- Potential for blocking during circuit setup.

### Reliability:

1. \*\*Circuit-Switched Networks:\*\*

- Generally more reliable for voice and real-time applications.

- Robust for continuous communication.

2. \*\*Packet-Switched Networks:\*\*

- Robust for data transfer, less suited for real-time applications.

- Variable latency, potential for packet loss.

3. \*\*Virtual Circuit-Switched Networks:\*\*

- Combines reliability of circuit-switching with efficiency of packet-switching.

- Suitable for a range of applications, balancing reliability and efficiency.