1.
1) First: each layer offers certain services to the higher layers,shielding those layers from the details of how the offered services are actually implemented. In maintenance, a change in a lower layer a lower layer work doesn't affect the way a upper work.
Second: the layered protocols can help us classify protocols of a whole network. Reduce the development and maintenance complexity.

2) Yes, it is a OSI model, in this case the president of the two corporate act as the top layer. The legal department act as the middle layer. They offer service to the layer above them which is the president. The engineers ant as the bottom layer. They serve the legal department of the two corporate.

2.connection-oriented communication establish a connection when transform data, it's reliable, long-term.
Connectionless communication doesn't establish a connection, it's unreliable but it's quick and time-efficient.

3.no, they are not identical, after they establish a connection. A reliable byte stream often use to stream audio and video, just like the Tencent Meeting we use, if one packet get lose during the transmission, there is no way to ask the server to resend the byte cause the byte is real-time data. You have no time to resend. So the meeting we join get "stuck". However, a message stream require the real-time transmission much less than the reliable byte stream. So the server have enough time to resend the data.

4.yes, there are also exist the service provide by layer k-1 to layer k, since the lower layer provide the service to the layer just above it.

5.1) data-link layer 2)network layer

6.frames encapsulate packets, as shown in the table

| Header frame | Header packet | Data that we want to transmit |

We can regard the table as a frame transmit in the data-link layer. The process of encapsulating a packet within a frame is known as "framing." The frame includes a header and a trailer that contain control information, as well as the actual data (the packet) being transmitted. The header and trailer are added by the data link layer, and the resulting frame is then transmitted over the network.

7. similarity:
1)Both models are layered architectures.
2)they all have their own protocols
Difference:
1)OSI has 7 layers but TCP/IP have 3 layers
2)The protocols of OSI and TCP/IP are different even in same layer

8.TCP is connection oriented while UPD is connectionless.

9. ATM networks allows for fast and efficient data transmission, which is important for real-time applications such as video and audio streaming. The fixed length cell of ATM make it easy to be integrated in other protocols.