1. **Streaming video systems can be classified into three categories. Name and briefly describe each of these categories**

* UDP Streaming: UDP streaming requires a server to transmit videos that have a rate matching to the clients video consumption rate by ‘clocking out’ video chunks over UDP at a steady rate.
* HTTP Streaming: HTTP streaming is made up of videos that are stored in an HTTP server with a specific URL. When the video is ready to be seen, a TCP connection is made from the client to the server and there is a HTTP GET request for the specified URL.
* Adaptive HTTP Streaming: Adaptive HTTP streaming, also known as

**2. List three disadvantages of UDP streaming**

* The first disadvantage of UDP streaming is that there is weak continuous playout of constant-rate UDP streaming given the fact that there is an unpredictable amount of available bandwidth between server and client.
* The second disadvantage of UDP streaming is that requires servres like RTSP server, which is a media control server. A media control server has different purpose with one being that it tracks client state. Because it requires these types of servers, it isn’t ideal for large-scale video on demand systems because of the cost and complexity.
* The third disadvantage of UDP streaming is that users are often prohibited from videos because many firewalls are configured to block UDP traffic.

**3. What is a packet that is received after its scheduled playout time considered lost?**

There is no packet that is received because if it arrives at a later time it cannot be played.

**4. How are different RTP streams in different sessions identified by a receiver? How are different streams from with the same session identified?**

If RTP streams are in the same session then they are identified by different multicast addresses. If TRP streams in the same session, they are identified by the SSRC field.

**5. What is the role of a SIP registrar? How is the role of SIP registrar different from that of a home agent in Mobile IP?**

Sip registrars can be identified as a tracking system for users and their IP addresses. For users within the domain, there are INVITE messages that are forwarded to the current IP address of the user. In regards to Mobile IPs, there is a similarity shared because the home agent in a mobile IP is a router that essentially maintains the current location of a device in regard to its care-of address.