TAKS-01

1. **What are the three main parts of an IRC client *message*?**

Ans. Each IRC message may consist of up to three main parts:

(i)   the prefix (OPTIONAL),
(ii)   the command, and
(iii)   the command parameters (maximum of fifteen (15)).

The prefix, command, and all parameters are separated by one ASCII space character (0x20) each.

2. **What is the maximum number of parameters allowed in an IRC message?**

Ans. The maximum number of parameters allowed in an IRC message is **510**.

3. **What must all messages end with?**

Ans. All messages end with **Crlf**.

4. **Do any of the *requests* in the packet capture contain a prefix? If so, which are they? (list of frame numbers)**

Ans. The requests in the packet capture doesn't contain any prefix. With the help of command irc.request.prefix I found out that there was prefix was captured in L02-irc.pcapng file.

5. **Do any of the *responses* in the packet capture contain a prefix? If so, which are they? (list of frame numbers)**

Ans. The responses in the packet capture contain 10 prefix. With the help of command irc.response.prefix I was able to find the following prefix in L02-irc.pcapng file:

8, 9, 10, 11, 13, 15, 17, 19, 22, 24

6. **To chat in a channel, the client sends a PRIVMSG command. What would the message look like if user *kscrivs* sent the message *"workin' on the lab…"* to channel *labtwo*.**

Ans.

Request: PRIVMSG #comp429 :workin' on the lab…?

   Command: PRIVMSG

   Command parameters

   Parameter: #comp429

Trailer: workin' on the lab…

7. **IRC responses are numerical for the most part. What is the number range for responses to commands.**

Ans. The range of responses generated in response to commands is from 200 to 399.

8. **What is the number range for responses that are error messages?**

Ans. Error responses are seen in the 400 to 599 range.

9. **Write a Wireshark filter to find all the normal responses (not errors) to commands.**

Ans. By gathering all normal responses via irc.response.command in {200 .. 399}

Frame numbers 8 9 10 11 13 15 are normal responses.

10.Because of the message ending characters, more than one message can be present in a frame. List a frame that has this quality.

Ans. Frame 9(PSYCHZ)

Because it has the ending character, each row of PSYCHZ is a separate message.