Assignment 2

Course: CSE405 (Sec 1, Sec 2 and Sec 3)

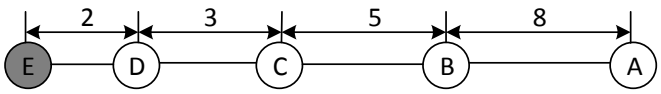
Due Date: 6 May (Thursday) 2021

Marks: 20

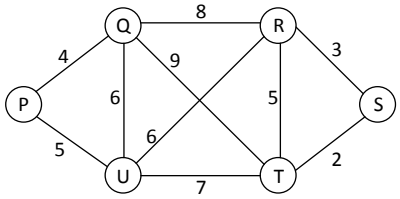
Please answer the following questions:

Question 1. Linear subnet is not an intelligent and fruitful network to design; give reasons why do we still see linear subnet to exist sometimes. (2+3+3) = 8 marks

Following is a linear subnet comprises of routers A, B, C, D and E; the internal distances between routers are shown in msec. **Show** the initial state considering router **E** is up. **Calculate** 5 more exchanges after router **E** gone down and additional 5 more exchanges after **E** gone up after the previous 5 exchanges.



Question 2. Create a link-state packet for router **U** in the following subnet. (2+5+5) = 12 Marks



Sequence number and its length are important factors for link-state packets. **Analyze** the effect of duration of age (short and long) in the link state packets that helps router not to deal with backdated information for long, which is caused by sequenced number errors. Also **analyze** how age can't help to solve sequence number wrap up problem when short length of sequence number is taken.