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Home Work : Transport Layer

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1. Why are transport layer services called end-to-end?

Transport layer provides a point-to-point reliable connection between two end stations.

2. How do transport layer services differ from network layer services?

3. In what way are transport layer services similar with data link layer services?

4. What are the types of transport services?

5. What is the theoretical maximum number of Internet connection? Note: IPv4 address and a port together represent the transport address

6. What are the transport layer primitives? How are they related with connection-less service?

7. How is a connection established before starting a communication? It may not happen at once. What are the possible issues that can exist? How is it solved?

8. Draw diagrams for following scenarios (you may use a diagramming tool and include an image in the document, or you may draw on a piece of paper, take a photo and include it in the document)

8.1. Connection establishment

- Normal case of a three-way handshake
- Old CONNECTION REQUEST appearing out of nowhere
- Duplicate CONNECTION REQUEST and duplicate ACK

8.2. Connection Release

- Normal case of a three-way handshake
- Final ACK lost
- Response lost
- Response lost and subsequent DRs lost

9. What is the objective of having flow control mechanism?

10. How does buffer help controlling the flow?