Advanced Computer Architecture

Assignment – 6
DataCenter TCP
Q1: TCP Optimizations

- Why TCP optimizations are easy in Datacenter setup compared to other mediums?

- Examples of TCP optimizations which are easy and which are hard?
Q2: Link utilization patterns

- How the partition/aggregation communication pattern will differ between standard 3-tier topology and other fat-tree based topology like portland and VL2?
Q3: TCP Incast

- What is TCP incast?
- Why it happens?
  - and why is it bad for Datacenter?
- Suggest one possible solution
Q4: Deadline aware TCP

- Why would TCP miss a deadline?
- Why would killing a flow help in context of deadline?