Networking fundamentals practice quiz - Q1

- You've been named as the network administrator of TritonCorp, and your Internet provider has allocated the **106.209.64.0/21** IP address range to you. Excluding IP addresses where the host bits are all 1s or all 0s, how many hosts could this network support in total?

Networking fundamentals practice quiz - Q2

- If you wanted to divide your network up into the maximum number of subnets possible, with the constraint that each subnet supports at least 200 hosts, how many subnets would that be?

Networking fundamentals practice quiz - Q3

- Consider the following routing table. The router can deliver packets directly over interfaces 0 and 1, or it can forward packets to routers R2, R3, or R4. Assume the router does the longest prefix match. Describe what the router does with a packet addressed to 128.96.169.92

Subnet Number	Subnet Mask	Next Hop
128.96.170.0	255.255.254.0	Interface 0
128.96.168.0	255.255.254.0	Interface 1
128.96.166.0	255.255.254.0	R2
128.96.164.0	255.255.252.0	R3
Default (0/0)	-	R4

Networking fundamentals practice quiz - Q3

- Consider the following routing table. The router can deliver packets directly over interfaces 0 and 1, or it can forward packets to routers R2, R3, or R4. Assume the router does the longest prefix match. Describe what the router does with a packet addressed to 128.96.169.92

Subnet Number	Subnet Mask	Next Hop
128.96.170.0 /23	255.255.254.0	Interface 0
128.96.168.0 /23	255.255.254.0	Interface 1
128.96.166.0 /23	255.255.254.0	R2
128.96.164.0 /22	255.255.252.0	R3
Default (0/0)	-	R4

Networking fundamentals practice quiz - Q3

- Consider the following routing table. The router can deliver packets directly over interfaces 0 and 1, or it can forward packets to routers R2, R3, or R4. Assume the router does the longest prefix match. Describe what the router does with a packet addressed to 128.96.169.92

Subnet Number	Subnet Mask	Next Hop
128.96.170.0	255.255.254.0	Interface 0
128.96.168.0	255.255.254.0	Interface 1
128.96.166.0	255.255.254.0	R2
128.96.164.0	255.255.252.0	R3
Default (0/0)	-	R4

- *Bitwise AND incoming IP and subnet mask, starting by longest mask(s) [most specific prefix].*
  - *Check if output matches subnet number; if so forward there*
  - *Keep checking shorter masks until there is either a match or I run out of subnets*
  - *if no matches, send to default next hop*

Module 2 is out

- Module 2 Lead: Amulya
- OH: Thurs. 3-4pm