

## Enumeration Questions

1. **What is the command to install the package nginx?**
  - a. Sudo dnf install nginx
2. **What is the command to open the port 80 for TCP?**
  - a. Sudo firewall-cmd - -add-port=80/tcp - - permanent - -zone=public
3. **Is there an additional command needed after running the command above? Yes, what is it?**
  - a. Sudo firewall-cmd - - reload
4. **What is the command to start the service nginx?**
  - a. Sudo systemctl start nginx
  - b. Sudo systemctl stop nginx
  - c. Sudo systemctl restart nginx
5. **What is the IPv4 localhost address for node1? Is it the same on main? Every machine?**
  - a. 127.0.0.1 yes! It is the same on the main as well as on every machine.
6. **What is the IP address on VLAN 100 for node1?**
  - a. 10.100.100.141

## Qanda Questions

1. **What is the key feature contributing to performance improvements in HTTP/2?**
  - a. The key feature contributing to the performance improvements in HTTP/2 is the binary based rather than ASCII.
2. **What strategy does HTTP/2 employ to transfer less bytes in regards to HTTP headers?**
  - a. By only sending the headers that have changed, the headers can become significantly smaller on subsequent requests. The redundant headers are not sent repeatedly.
3. **What purpose do streams serve in HTTP/2?**
  - a. Streams are channels for the client and the server to communicate bi-directionally.
4. **How many TCP connections does HTTP/2 use per origin?**
  - a. It uses just one TCP connection.

5. Besides the obvious fact that the browser downloaded all the other resources and curl did not, what differences do you see in how the data was transferred for the index.html page?
  - a. The HTTP has larger headers than the curl.
6. What http2 stream ID was used to send the data in the second capture?
  - a. 1
7. What http2 stream ID was used to send the headers in the second capture?
  - a. 1
8. How many total bytes were transferred from the server to the client for the index.html page response in HTTP/1.1?
  - a. 1231
9. What about with http2?
  - a. 1002
10. How many bytes total is the index.html page?
  - a. 993
11. How many bytes of extra information did HTTP/1.1 use vs. HTTP/2?
  - a. HTTP/1.1 uses 238
  - b. HTTP/2 uses 9