Written Exam – 4 Full pages (1 hour)

* **NetBIOS:**
  + NetBIOS Commands:
    - nbtstat –c displays the netbios cache
    - nbtstat –n will view the NetBIOS services offered by the localhost
    - nbtstat –R will clear the cache and add any #PRE entries in lmhost
  + NetBIOS flow chart:

**NetBIOS WINS broadcast lmhosts**

**cache server file**

* + What’s in the NetBIOS cache:
    - NetBIOS cache stores the hostname to IP resolution table
  + **Scenario:** If your company has multiple segments (you’re using NetBIOS), how can you find another computer in a different network using NetBIOS (translating a computer name of another computer on a different network)?
    - There are 2 ways to do this
      * One of the ways is very obvious
      * The other requires some thinking (think about the flowchart)
* **Printers:** 
  + When a printer is pointing to a shared printer on a print server, then only the person who installed that printer will have access to it.
    - USB installed printer: Everyone can access it
    - Network printer installed via IP: Everyone can access it
  + **Print spooling vs pooling:** 
    - **Spooling:** is when the printer stores print jobs in the hard drive
    - **Pooling:** is when print jobs are delegated to multiple printers
* **Permissions (NTFS and Shared):**
  + What type of computer authenticates users with domain accounts?
    - Domain Controller
  + Where are the local username and password stored (there’s a database for it, what is that database called)?
    - Active Directory
  + If someone wanted to delete a file from a shared folder on the network, what permission does that person need?
    - **NTFS:** Modify
    - **Share:** Change
  + **NTFS Permissions:**
    - Read
    - Read & Execute
    - Write
    - Modify
    - Full
  + **Share Permission:**
    - Read
    - Change
    - Full
  + **Session Ticket:**
    - Session tickets are electronic passports that grant an authenticated user some access to resources on the computer.
  + **3 Methods of authentication (from one local computer to another):**
    - Have an account with identical username and password
    - Adding a Windows Credential
    - Supply a username and password
  + In the **DACL** sometimes the permissions are grayed out, explain why:
    - Permissions are grayed out because they were inherited and cannot be modified
  + Finding out what groups you belong to:
    - Whoami /groups
  + What would you type to figure out what folders are shared on computer called Neptune
    - Net view \\neptune
* **LMHOST file:**
  + What does #PRE do in the lmhost file
    - #PRE preloads an entry into the NetBIOS cache each time the computer is started. This creates a negative entry cache.
    - **Location:** C:\windows\system32\driver\etc
* **DNS:**
  + Why do you want multiple DNS?
    - Redundency
    - Load balancing
    - Help Keep DNS traffic local
  + How do you change the TTL on the cache Record
    - TTL can be changed in the Start of Authority, set on the authoritative DNS server
    - By default DNS ttl is 1 hour
  + Who decides how long TTL is:
    - Set on the authoritative DNS server
  + How to change the TTL on the cache record
    - By default its an hour
    - Who decides how long the TTL is?
  + Know the DNS commands
    - Ipconfig /displaydns
    - Ipconfig /flushdns
    - Know about host file
      * HOST vs LMHOST file
    - How do you remove entries from a static dns cache
      * Ie: go to host file and remove it
  + Negative Cache entry
    - How negative cache entry saves bandwidth and cpu cycles
    - Know the path to the host file
* Where are the local username and password stored (there’s a database for it, what is that database called)?
  + If it asks for Domain accounts: Domain Controller
  + If it asks for the Database: Active directory
* How can you tell if a computer joined a domain
  + Have to know how to check if you login to **the domain controller**
    - Hint: Something to do with Computer containers
      * Search active directory.. etc..
* Question on net view:
  + Check notes <https://support.microsoft.com/en-us/help/141229/how-to-use-the-net-view-command-to-view-shared-resources>