TCOM 515 Final Exam Topics

- Administrative Distance
- Autonomous System
- IGP versus EGP
- OSPF
  - External Path and LSA Types
  - Metric – Cost
- EIGRP
  - DUAL
  - Feasible successor
  - Successor
  - Feasible distance
  - Metric calculation
  - Topology table
  - Neighbor table
  - Internal and external routes
  - Reliable transport protocol
  - EIGRP packet types
- BGP
  - Autonomous System
  - Private AS vs. public AS
  - Neighbor establishment process
    - Active
    - Connect
    - Opensent
    - Openconfirm
    - Established
  - Message types – open, update, notification, keepalive
  - RIBs – Adj-RIB-in, Loc-RIB, Adj-RIB-out
  - Attributes – Origin, AS-path, Local–pref, Next Hop, MED (Multi-exit Discriminator), Communities
  - Best path selection Process
    1. Highest Local-Pref value.
    2. Shortest AS-Path list.
    3. Lowest origin code.
    4. Lowest MED value if there are multiple links to the same neighbor AS.
    5. eBGP routes are preferred over iBGP routes.
    6. Lowest IGP metric to the BGP Next-Hop.
    7. BGP neighbor with the lowest BGP identifier preferred.
    8. Neighbor with lowest IP address preferred
  - Next hop reachability
  - iBGP vs. eBGP
  - iBGP scaling
  - Route/prefix advertisement
- Route Redistribution
  - Important Considerations – AD, metric, classless vs. classful
  - Redistribution behavior into OSPF, EIGRP, RIPv2, and BGP
  - Mutual redistribution
- Default Route
  - Usage
- Route filtering
  - Usage
  - Implementation
- IPv6
- Router Outputs
  - Show running-config
  - Show IP OSPF database
  - Show IP route
  - Show IP protocol
  - Show IP BGP
  - Show IP BGP <network>
  - Show IP BGP summary
  - Show IP BGP neighbor
  - Show IP EIGRP neighbor
  - Show IP EIGRP topology
  - Show IP EIGRP topology <network>