

# Recitation 4: Group exercises

## 1. BOOTP

- How it operates when client and server are on the same network and when on different networks?
- How reliability is provided by BOOTP?
- What is the use of Transaction ID field?
- Why does a newly added host need to know the IP address of an interface of a router?
- Why does a newly added host need to know the IP address of a name server?
- Why do you think BOOTP needs to use TFTP to get additional information? Why can't all the information be retrieved using BOOTP?

## 2. DHCP

- Why we need DHCP when BOOTP is there?
- Which ports are used by DHCP client and server?
- Why flag bit is used in DHCP packet?
- When DHCP binding is renewed in terms of lease time?
- When DHCP needs rebinding in terms of lease time?

## 3. DNS

- Why DNS uses Hierarchical Name Space instead of Flat Name Space?
- What is the difference between a domain and a zone?
- What is the difference between a FQDN and PQDN?
- What is zone transfer?
- What is the difference between recursive and iterative resolution?
- How caching helps in DNS?
- How a client specifies that it desires recursive answer?
- What does the following resource records specify:  
A, NS, CNAME, SOA, PTR, HINFO, MX, AAAA
- How compression is done in DNS?
- DNS uses TCP or UDP as transport layer protocol. Discuss.
- What is DDNS?

## 4. TFTP

- Why do TFTP need RRQ or WRQ?
- Does TFTP use port 69 for data transfer after initial connection? If not, why?
- What is Sorcerer's Apprentice Bug?