

Birzeit University
Department of Electrical and Computer Engineering
Second Semester 2022/2023
ENCS3320-Computer Networks
Project2, deadline 4/7/2023

Part 1:

In your own words, explain briefly the function of: DHCP, DNS, ICMP.

Using Wireshark software, sniff DHCP, DNS, and ICMP packets, show the series of packets for each service that complete the request and service response, choose one packet from each service and explain at least 5 fields.

Part 2:

Using packet tracer, build a network that contains **at least** 4 routers –do **not** use ring topology- 2 switches, 5 PCs.

Use **OSPF** routing protocol

At least in one subnet uses **DHCP**

The network should contain a **webserver**

The network should contain a **DNS server**

Build the IP addresses using your university **ID** (ID of one student of a group is enough)

If the ID is 1201234=120xyzw then the **IP** should be 205.x.y.0/24

You should do proper Subnetting.

Using ping command to show reachability from one host to another host.

Use tracert command to show the path a packet traversed to reach its destination from each subnet host to a remote destination.