

Assignment 1

Port Matching

Name: _____ Period: _____ Date: _____

Before you start (prerequisites)

Assumes you can: read a port number, tell TCP from UDP, and recognize the names HTTP, HTTPS, DNS, DHCP, SSH, RDP, SMB. Builds on: Lesson 2.3 Ports & Protocols (today's class). If any of those terms are new, go back to the slide deck for this lesson before starting.

What to do

Match each port number on the LEFT to the correct service on the RIGHT. Then answer the follow-up reasoning questions. You may use the port table on slide 13 of today's deck as a reference. Aim to finish in 15 minutes.

Part A · Matching (8 points)

Draw a line from each port number to the service it runs. Each port matches exactly one service. Watch out for the ones that look similar (DNS vs DHCP).

Port	Your answer (service)	Port	Your answer (service)
22	_____	443	_____
25	_____	445	_____
53	_____	3389	_____
67/68	_____	80	_____

Service options to choose from (use exactly once each): HTTPS, SMTP, DHCP, SSH, RDP, DNS, SMB, HTTP.

Part B · TCP or UDP? (6 points)

Circle TCP or UDP for each. If both apply, write "BOTH" instead.

1. HTTPS (port 443) → TCP or UDP
2. DNS lookup (port 53) → TCP or UDP
3. DHCP discover (port 68) → TCP or UDP

4. RDP (port 3389) → TCP or UDP
5. Live voice call over SIP → TCP or UDP
6. File download from a web server → TCP or UDP

Part C · Reasoning (6 points)

Answer in 2-3 sentences each.

1. Why does DNS mostly use UDP instead of TCP?

2. A user reports their browser can reach websites by IP address but not by name. Which port number's service is most likely broken, and why?

3. Telnet (port 23) is rarely used today. What replaced it, and what's the main reason?

Part D · Quick check (challenge, +2 bonus)

Without looking, list as many of the 6 email-related port numbers as you can remember:

Submission

Submit per your teacher's instructions. If you finish early, start Assignment 2 (firewall rules performance task) from your teacher.