ANNEX A · PRACTICAL 3.3 · MEET ROUTEROS

Name: _____ Group G = _____ Date: _____

Rule of the day: only `ether1` may ever go to the wall socket. **Part A** is done by the group on its real router: the **driver** changes at every step, the others check this sheet. **Part B** is yours alone, on your own virtual router, while you are not driving. Hand in `practical-3.3-surname.md` before Wednesday 09/12, 11:15. **Marks:** Part A (group, ticked by the teacher) 5 · Part B (your report) 5.

PART A **The group's router** Drivers: A2 _____ A3 _____ A4 _____

A1 · Look at the box. Model: _____ Ethernet ports: _____ Password on the sticker? _____
Power it on. Cable the group's PC to **ether2**. **DONE WHEN** a light is on next to ether2.

A2 · What did the PC receive? On the cabled PC:

```
ip -br addr ; ip route
```

PC address: _____ Gateway: _____ Who gave them to the PC? _____

A3 · Door 1, WebFig. Browser: `http://192.168.88.1`. User `admin`, password from the sticker (or empty). When RouterOS asks for a new password, type the one on the board. Open **Quick Set** and **look** (apply nothing).

DONE WHEN you can point at the WAN half and the LAN half of Quick Set. Teacher's tick: _____

A4 · Door 2, WinBox. Open WinBox → **Neighbors**. Click the **MAC address** of your router, then **Connect**.

Router's MAC: _____ RouterOS version: _____ Identity: _____

Open **Interfaces**, **IP → Addresses** and **IP → DHCP Server → Leases**. Address of your PC there: _____

DONE WHEN you are connected by MAC and you found your PC in the leases. Teacher's tick: _____

A5 · Door 3, the CLI. New driver. On the cabled PC, `ssh admin@192.168.88.1`, then:

```
/system identity set name=gG-router          # with your group number
/ip address print
/ip dhcp-server lease print
/system resource print
```

DONE WHEN the prompt says `[admin@gG-router] >`. Teacher's tick: _____

A6 · One user each. New driver. For each member of the group (group `full`, the password on the board):

```
/user add name=yourname group=full password=...
/user print
```

DONE WHEN each member has logged in once by SSH with their own name.

A7 · Save, then reset (start at 1:25 at the latest).

```
/export file=gG-day1
/system reset-configuration                  # it asks: answer y
```

After the reboot — PC address: _____ Identity: _____ Your users still there? _____

DONE WHEN the login page of the **reset** router is on the screen: show it to the teacher. Tick: _____

PART B — Your own router: a CHR in containerlab (alone)

B1 · Start it and get in. In `~/labs`, with `ros.clab.yml`:

```
containerlab deploy -t ros.clab.yml          # the router needs 1-2 minutes to boot
ssh admin@clab-ros-r1                        # password: admin
```

DONE WHEN you see the prompt `[admin@r1] >`.

B2 · Walk around. Type each line. Try **Tab** in the middle of a word and **F1** on an empty line.

```
/interface print
/ip address print
/ip address                                  # go into a menu...
print                                        # ...the same command, shorter
..                                           # one level up
```

Interfaces: _____ and _____ Addresses now: ____, on interface _____

DONE WHEN you can say what `/`, `..` and Tab do.

B3 · Give it the group's address and ping it. On the router:

```
/system identity set name=gG-surname
/ip address add address=10.G.0.1/24 interface=ether2
```

In a second terminal, the lab's PC (`docker exec -it clab-ros-pc1 bash`):

```
ip addr add 10.G.0.11/24 dev eth1
ping -c 2 10.G.0.1
```

Packets received: ____ of 2 On pc1, `ip neigh` shows the router's MAC: _____

B4 · A user who can only look. On the router:

```
/user add name=pau group=read password=intern-1234
/quit
```

Log in again as `pau` (`ssh pau@clab-ros-r1`) and try:

```
/ip address print
/system identity set name=hacked
```

First command: works / refused Second: works / refused (circle) Why? _____
Then `/quit` and log in as `admin` again.

B5 · The configuration as text.

```
/export
```

Which of your changes of B3 and B4 can you find in the output? _____

DONE WHEN the output is pasted into your report. Then `/quit`, `exit`, `containerlab destroy -t ros.clab.yml --cleanup`.

Report: the `/export` of B5 · the answers of this sheet · three lines: which door do you prefer, and for what?

EXIT TICKET — Circle one answer. Alone, no notes.

1. Default LAN address of a MikroTik with default configuration:
a) `192.168.1.1` **b)** `192.168.88.1` **c)** `10.0.0.1` **d)** `192.168.0.254`

2. WinBox can open a router that has no IP address because it connects by…
a) DNS name **b)** DHCP **c)** MAC address **d)** Bluetooth

3. Which command prints the whole configuration as commands?
a) `/export` **b)** `/print all` **c)** `/system show` **d)** `/backup`

4. What does Safe Mode do?
a) It encrypts the session **b)** It blocks the other users
c) It makes a backup every minute **d)** It undoes your changes if your session is lost