

LOCATION: LONDON

**LLEOLIAD:
LLUNDAIN**

LEVEL 5

LEFEL 5

**EXAMINATION PERIOD
JUNE 2022**

**CYFNOD ARHOLIADAU
MEHEFIN 2022**

**MODULE CODE: ACCA5024
COD Y MODWL: ACCA5024
ADVANCED NETWORKING**

TIME: 3 HOURS

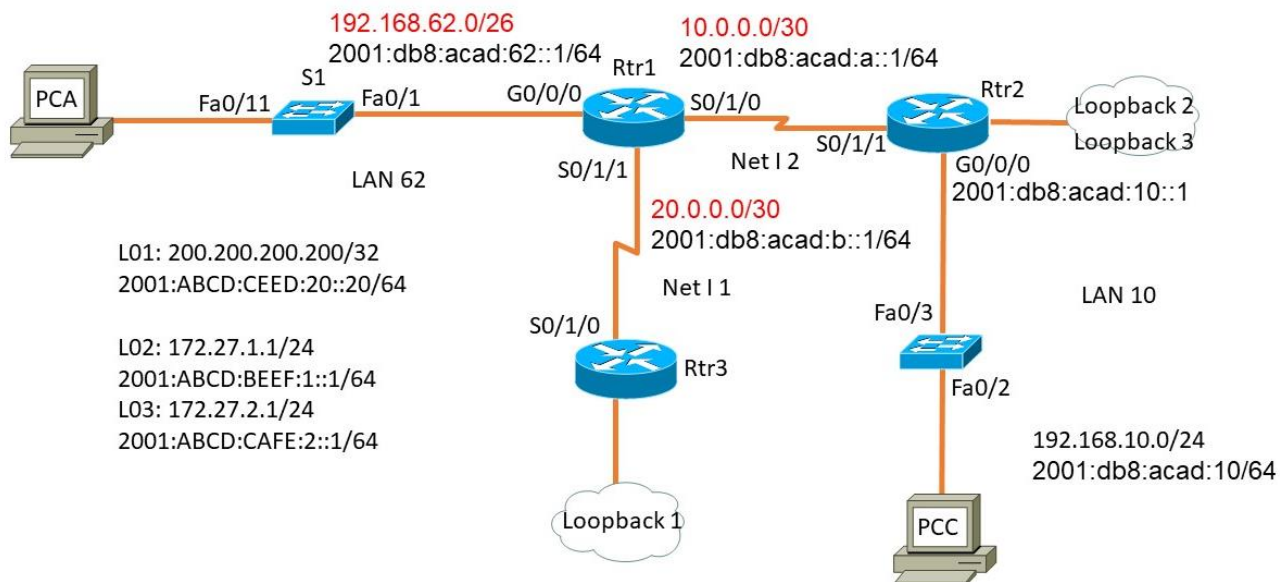
Name : _____

Student ID : _____

Date & Time : _____

This is an individual practical test, held under examination conditions. You will be assigned three Switches and three Routers; you should configure these devices based on the given specifications.

This paper is marked out of 100.

Topology**Addressing Scheme**

Network	Scheme
LAN 62	192.168.62.64/26
LAN 10	192.168.10.0/24
Net I 1	10.0.0.0/30
Net I 2	20.0.0.0/30

Addressing Table: IPv4 (5 marks)

Device	Interface	IP Address	Subnet Mask	Default Gateway
Rtr1	Gi0/0/0	FUH _____ 2001:db8:acad:62::1	_____ /64	N/A
	S0/1/0	FUH _____ 2001:db8:acad:a::1	/64	N/A
	S0/1/1	FUH _____ 2001:db8:acad:b::1	/64	N/A
Rtr2	S0/1/1	LUH _____ 2001:db8:acad:a::2	/64	N/A
	Gi0/0/0	FUH _____ 2001:db8:acad:10::1	/64	N/A
	Lo2	172.27.1.1 2001:ABCD:BEEF:1::1	/24 /64	N/A
	Lo3	172.27.2.1 2001:ABCD:CAFE:2::1	/24 /64	N/A
Rtr3	S0/1/0	LUH _____ 2001:db8:acad:b::2	/64	N/A
	Lo1	200.200.200.200 2001:ABCD:CEED:20::20	/32 /64	N/A
PCA	NIC	4 th usable Host _____ Address	As addressing Scheme	As per Topology
PCC	NIC	4 th usable Host _____ Address	As addressing Scheme	As per Topology

Task 1: IN-CLASS ASSESSMENT (10 Marks)

1. Skill Integration Challenge (10 Marks)

Task 2: - Device Configuration (75 marks)

1. On all devices,
 - a) Configure hostname on all devices
 - b) Set privilege EXEC password
 - c) Configure line console password
 - d) Set logging synchronous
 - e) Configure line VTY password
 - f) Disable DNS lookup
 - g) Set password encryption
 - h) Set banner "Authorized Users Only!"
2. On all devices, configure interfaces with IPv4 and IPv6 addresses as shown in the topology
3. On Rtr1, configure IPv4 static route to Rtr2 and Rtr3 networks, excluding Lo1 network.
4. On Rtr2, configure IPv4 static route to Rtr1 and Rtr3 networks, excluding Lo1 network.
5. On Rtr3, configure IPv4 static router to Rtr1 and Rtr2 networks.
6. Configure default static route to reach Lo1 network using next-hop ip address.
7. Set the bandwidth on serial links to 512kbps.
8. Set the clock rate on DCE to be 64000
9. On Rtr1, configure IPv6 static route to Rtr2 and Rtr3 networks, excluding Lo1 network.
10. On Rtr2, configure IPv6 static route to Rtr1 and Rtr3 networks, excluding Lo1 network.
11. On Rtr3, configure IPv6 static router to Rtr1 and Rtr2 networks.
12. Configure IPv6 default static route to reach Lo1 network using next-hop ip address.
13. Using 1024 bit RSA keys configure SSH access on Rtr1. Use domain acca5024.com, username: admin and password: S024ITN.

Task3: Network connectivity (10 marks)

Using ping command, **verify end-to-end connectivity for both IPv4 and v6 networks:**

From PCA, ping PCC. Is it successful? yes/no

From PCA, ping Lo1. Is it successful? yes/no

From PCC, ping Lo1. Is it successful? yes/no

Verify SSH connectivity:

From PCA, establish telnet connection to Rtr1. Is it successful? yes/no (this should fail)

From PCA, establish SSH connection to Rtr1. Is it successful? yes/no

Submission Requirement

The packet tracer file should be saved as “*studentname_id*” and uploaded onto Moodle. In addition to packet tracer file, you **must** also submit

- the output of show running-configuration command in a text file for all devices configured.
- This document with **Addressing Scheme and Task 3** completed

All documentation for your solution should be submitted electronically on Moodle.

It is your responsibility that you submit all the outputs and files correctly.