**Lab Exam Exercise**

**Objective:**

Set up and configure a network topology using RIP and OSPF routing protocols in Cisco Packet

Tracer. Customize the network by assigning each computer a name and an IP address using the

last three digits of your roll number.

**Procedure:**

1. **Network Topology Design:**

* Create a topology that includes:
* 10-12 computers distributed across two LANs.
* Use two or more switches.
* At least two routers connected via a WAN link.
* Each computer must be assigned a name with the format: PC\_RollNumber (e.g.,
* PC\_123).

2. **IP Address Configuration:**

* Assign IP addresses to the computers in each LAN.
* The last three digits of each student's roll number must be used for the last octet

of the computer’s IP address (e.g., 192.168.1.RollNumber).

* Use a different subnet for each LAN (e.g., 192.168.1.0/24 for LAN 1 and
* 192.168.2.0/24 for LAN 2).

3. **Routing Protocols Configuration:**

* Configure one router with RIP v1.
* Configure the other router with OSPF.
* Ensure communication between LANs using these protocols.

4. **Packet Tracer Configuration Steps:**

* Add devices and create connections between them.
* Configure IP addresses on the computers, switches, and routers.
* Set up static routes or enable RIP/OSPF on the routers.
* Ensure correct routing between the two LANs and that data can be transmitted

between networks.

5. **Simulation:**

* Use Cisco Packet Tracer’s simulation mode to test message transmission.
* Ensure a message can be successfully transmitted from one network to another.

**Screenshot:**

