COMPUTER NETWORKS LAB
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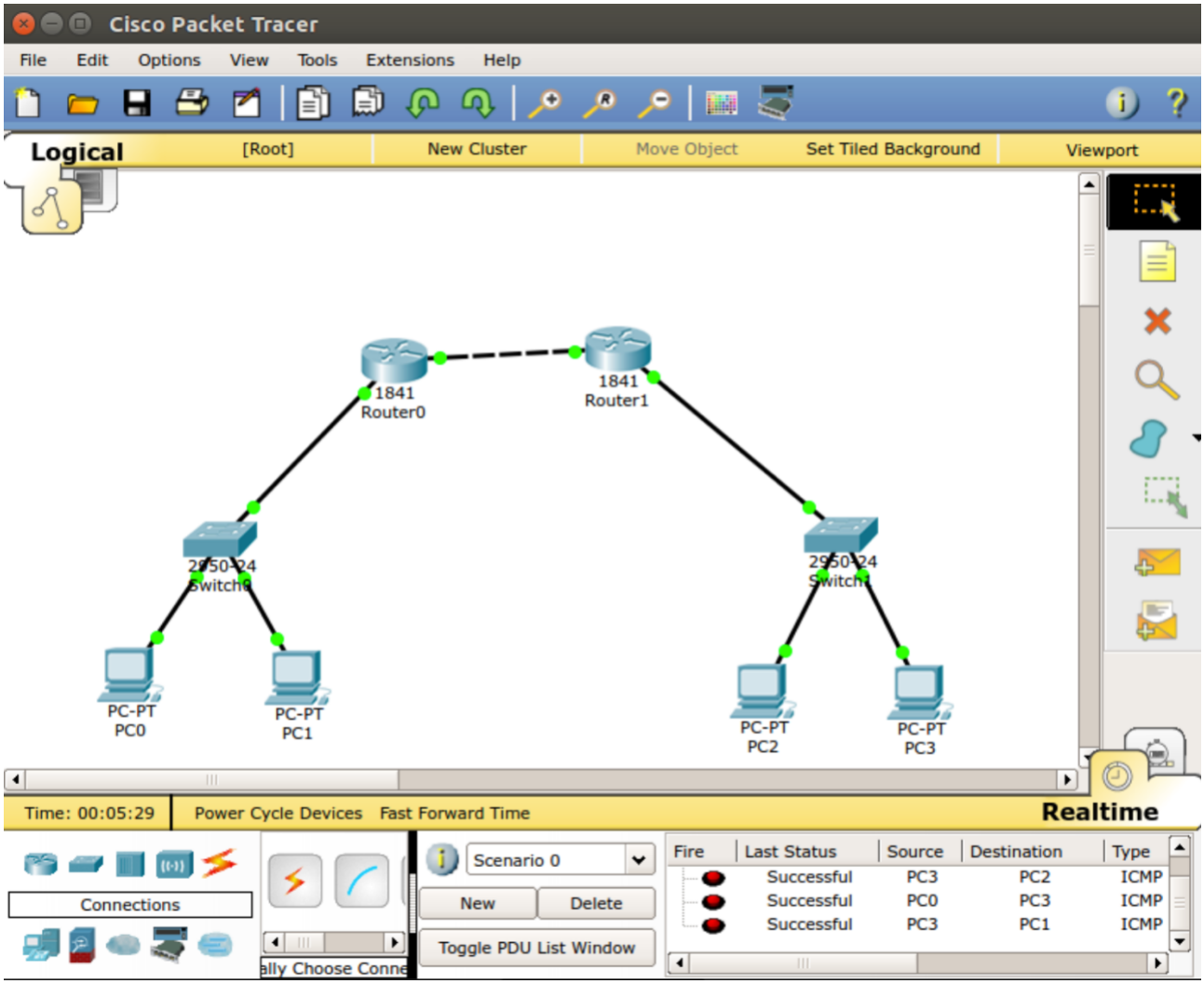
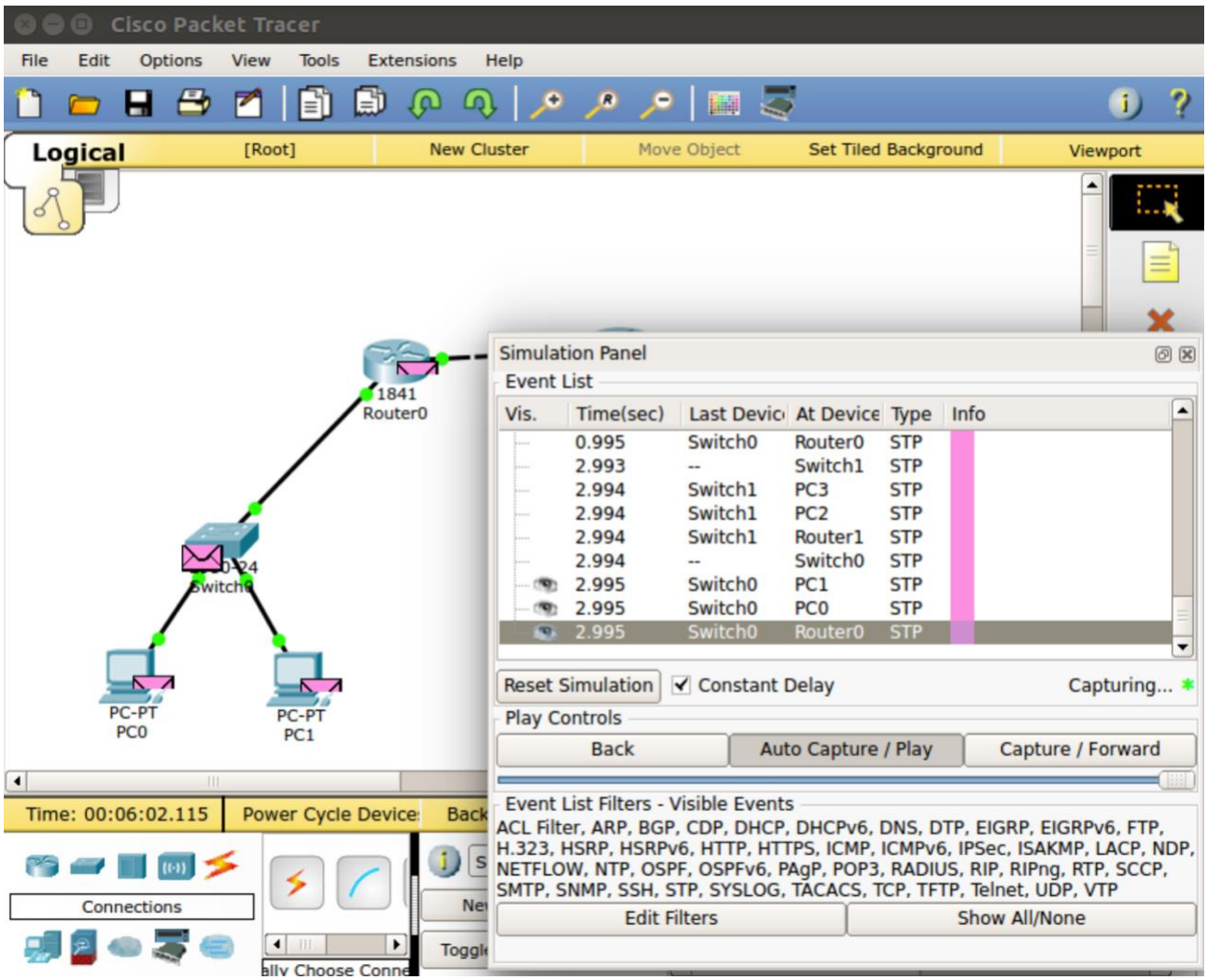
SECTION : I

TASK 1 :-

Network Topology:
A topology in packet tracer, was created as shown in following image.





1) A network topology with desktops, switches and routers similar to the network depicted in the above diagram is designed.
2) The PCs and routers are configured with the IP Addresses and subnet masksshown in the table below.
3) A PDU from a PC on network 10.0.1.0 to any other PC on other network 10.0.3.0 and vice-versa is sent.
4) Simulation of the network and the packet flow is observed from one network to other.

Network and Routing Tables

END SYSTEMS :-

END SYSTEM	INTERFACE NAME	IP ADDRESS	SUBNET MASK	GATEWAY
PC0	FastEthernet0	10.0.0.1	255.0.0.0	10.0.0.3
PC1	FastEthernet0	10.0.0.2	255.0.0.0	10.0.0.3
PC3	FastEthernet0	30.0.0.2	255.0.0.0	30.0.0.1
PC4	FastEthernet0	30.0.0.3	255.0.0.0	30.0.0.1

ROUTERS :-

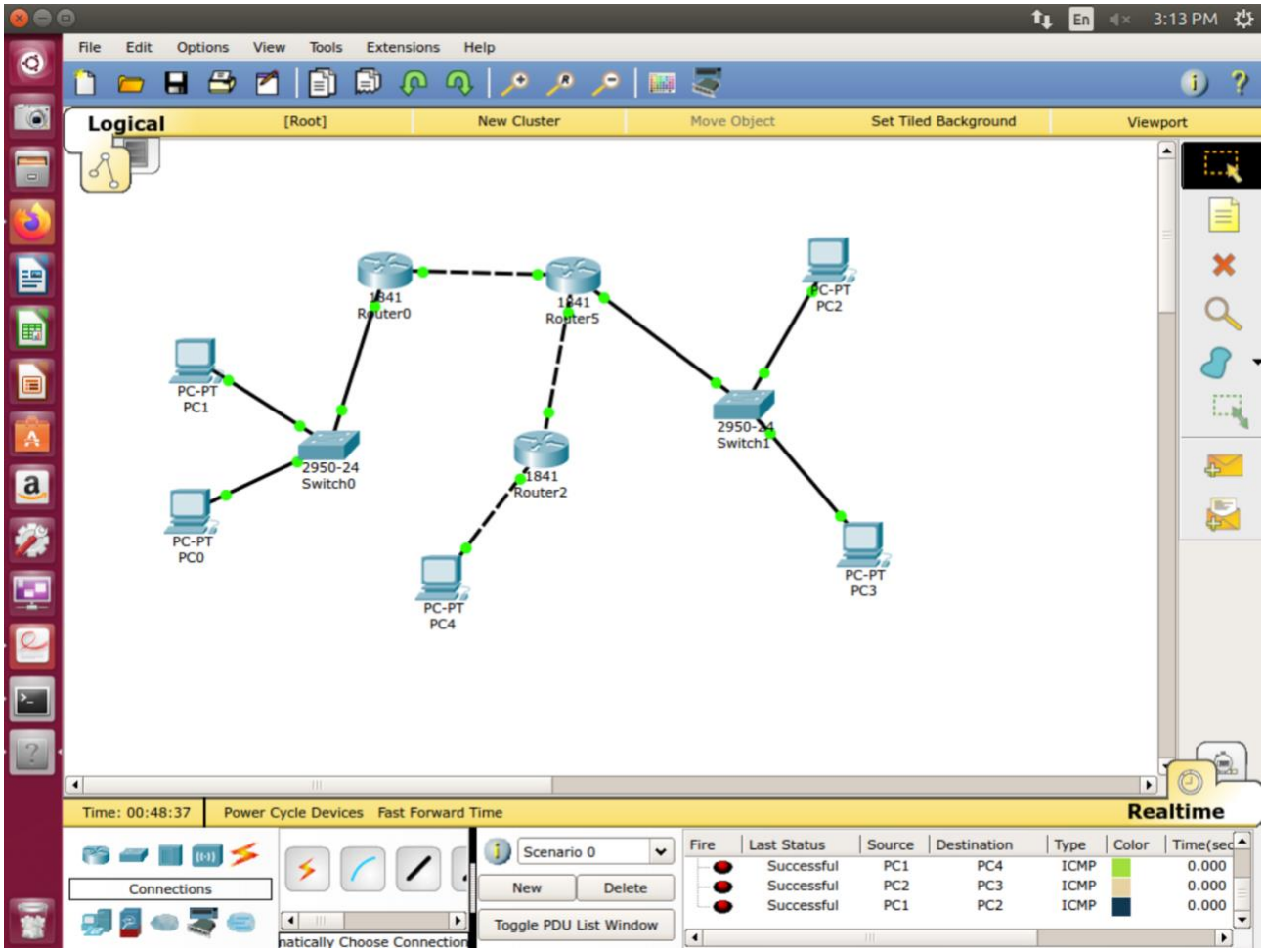
ROUTER	INTERFACE NAME	IP ADDRESS	SUBNET MASK
ROUTER0	FastEthernet0/0	10.0.0.3	255.0.0.0
ROUTER0	FastEthernet0/1	20.0.0.1	255.0.0.0
ROUTER1	FastEthernet0/0	20.0.0.2	255.0.0.0
ROUTER1	FastEthernet0/1	30.0.0.1	255.0.0.0

ROUTING TABLE :-

ROUTER	DESTINATION NETWORK	NEXT HOP
Router0	30.0.0.0	20.0.0.2
Router1	10.0.0.0	20.0.0.1

TASK 2 :-

Network Topology:
A topology in packet tracer, was created as shown in following image.



Network and Routing Tables

END SYSTEMS :-

END SYSTEM	INTERFACE NAME	IP ADDRESS	SUBNET MASK	GATEWAY
PC1	FastEthernet0	1.1.1.3	255.0.0.0	1.1.1.1
PC0	FastEthernet0	1.1.1.2	255.0.0.0	1.1.1.1
PC4	FastEthernet0	6.6.6.2	255.0.0.0	6.6.6.1
PC2	FastEthernet0	2.2.2.2	255.0.0.0	2.2.2.1
PC3	FastEthernet0	2.2.2.3	255.0.0.0	2.2.2.1

ROUTERS :-

ROUTER	INTERFACE NAME	IP ADDRESS	SUBNET MASK
Router0	FastEthernet0/0	1.1.1.1	255.0.0.0
Router0	FastEthernet0/1	3.3.3.1	255.0.0.0
Router5	FastEthernet0/0	3.3.3.2	255.0.0.0
Router5	FastEthernet0/1	2.2.2.1	255.0.0.0
Router5	Ethernet0/0/0	2.2.2.1	255.0.0.0
Router2	FastEtherent0/0	5.5.5.1	255.255.255.0
Router2	FastEthernet0/1	6.6.6.1	255.255.255.0

ROUTING TABLE :-

ROUTER	DESTINATION NETWORK	NEXT HOP
Router0	2.2.2.0	3.3.3.2
Router0	5.5.5.0	3.3.3.2
Router0	6.6.6.0	3.3.3.2
Router5	1.1.1.0	3.3.3.1
Router5	6.6.6.0	5.5.5.1
Router2	3.3.3.0	5.5.5.2
Router2	1.1.1.0	5.5.5.2
Router2	2.2.2.0	5.5.5.2