

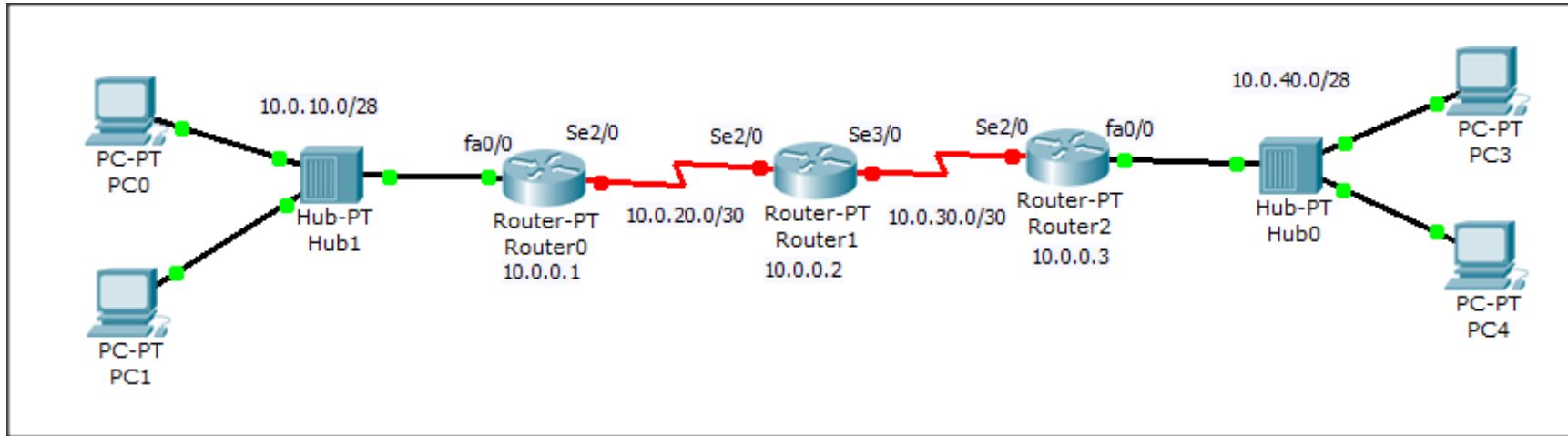


Course name: Specialized Practical Applications Exam number: Midterm - Revision sheet  
Course Code: CNE414 Exam Date: Nov 2016  
Lecturer: Dr. Ahmed ElShafee Time Allowed: 60 minutes

Name: \_\_\_\_\_

ID: \_\_\_\_\_

### Topology 01 (3 routers static route)





### **Topology 01 ( 3 Routers static Route)**

#### **Router 01**

```
enable
Config t
enable password cisco

line vty 0 4
password cisco
login

interface loopback 0
no sh
ip address 10.0.0.1 255.255.255.255

Interface fa0/0
IP address 10.0.10.1 255.255.255.240
No sh

Interface se2/0
IP address 10.0.20.1 255.255.255.252
No sh
clock rate 2000000

IP route 10.0.10.0 255.255.255.240 fa0/0
IP route 10.0.20.0 255.255.255.252 se2/0
IP route 10.0.30.0 255.255.255.252 se2/0
IP route 10.0.40.0 255.255.255.240 se2/0
IP route 10.0.0.2 255.255.255.255 se2/0
IP route 10.0.0.3 255.255.255.255 se2/0
```

Exit

#### **Router 02**

```
enable
Config t
enable password cisco

line vty 0 4
password cisco
login

interface loopback 0
no sh
ip address 10.0.0.2 255.255.255.255

Interface se2/0
IP address 10.0.20.2 255.255.255.252
No sh
```



Interface se3/0

IP address 10.0.30.2 255.255.255.252

No sh

IP route 10.0.10.0 255.255.255.240 se2/0

IP route 10.0.20.0 255.255.255.252 se2/0

IP route 10.0.30.0 255.255.255.252 se3/0

IP route 10.0.40.0 255.255.255.240 se3/0

IP route 10.0.0.1 255.255.255.255 se2/0

IP route 10.0.0.3 255.255.255.255 se3/0

Exit

### **Router 03**

enable

Config t

enable password cisco

line vty 0 4

password cisco

login

interface loopback 0

no sh

ip address 10.0.0.3 255.255.255.255

Interface se2/0

IP address 10.0.30.1 255.255.255.252

No sh

clock rate 2000000

Interface fa0/0

IP address 10.0.40.1 255.255.255.240

No sh

IP route 10.0.10.0 255.255.255.240 se2/0

IP route 10.0.20.0 255.255.255.252 se2/0

IP route 10.0.30.0 255.255.255.252 se2/0

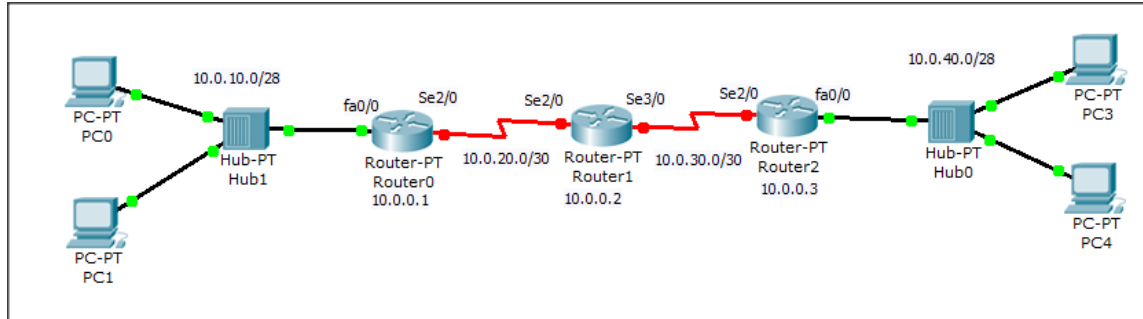
IP route 10.0.40.0 255.255.255.240 fa0/0

IP route 10.0.0.2 255.255.255.255 se2/0

IP route 10.0.0.3 255.255.255.255 se2/0

exit

### Topology 02 (3 routers static route with default route)





### **Topology 02 ( 3 Routers static Route with default route)**

#### **Router 01**

```
enable
Config t
enable password cisco

line vty 0 4
password cisco
login

interface loopback 0
no sh
ip address 10.0.0.1 255.255.255.255

Interface fa0/0
IP address 10.0.10.1 255.255.255.240
No sh

Interface se2/0
IP address 10.0.20.1 255.255.255.252
No sh
clock rate 2000000

IP route 10.0.10.0 255.255.255.240 fa0/0
IP route 0.0.0.0 0.0.0.0 se2/0
```

Exit

#### **Router 02**

```
enable
Config t
enable password cisco

line vty 0 4
password cisco
login

interface loopback 0
no sh
ip address 10.0.0.2 255.255.255.255

Interface se2/0
IP address 10.0.20.2 255.255.255.252
No sh

Interface se3/0
IP address 10.0.30.2 255.255.255.252
No sh
```



```
IP route 10.0.10.0 255.255.255.240 se2/0
IP route 10.0.20.0 255.255.255.252 se2/0
IP route 10.0.30.0 255.255.255.252 se3/0
IP route 10.0.40.0 255.255.255.240 se3/0
IP route 10.0.0.1 255.255.255.255 se2/0
IP route 10.0.0.3 255.255.255.255 se3/0
```

Exit

### **Router 03**

```
enable
Config t
enable password cisco
```

```
line vty 0 4
password cisco
login
```

```
interface loopback 0
no sh
ip address 10.0.0.3 255.255.255.255
```

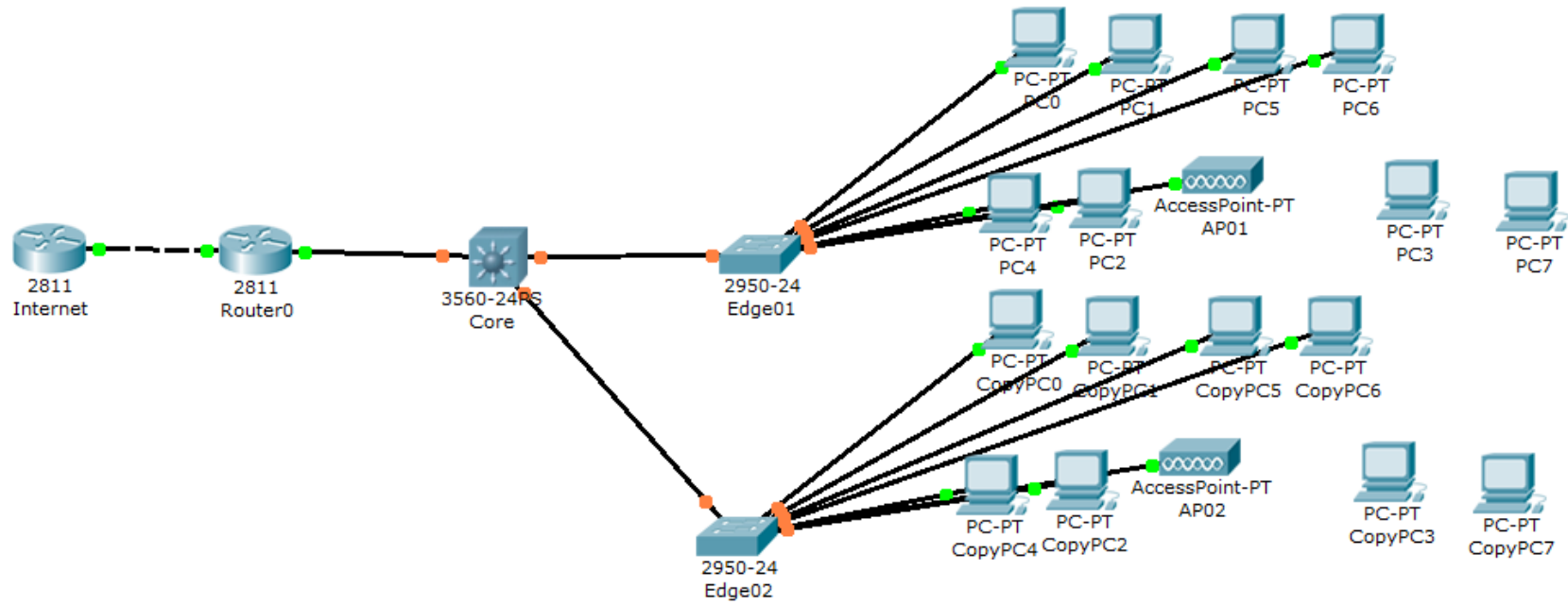
```
Interface se2/0
IP address 10.0.30.1 255.255.255.252
No sh
clock rate 2000000
```

```
Interface fa0/0
IP address 10.0.40.1 255.255.255.240
No sh
```

```
IP route 10.0.40.0 255.255.255.240 fa0/0
IP route 0.0.0.0 0.0.0.0 se2/0
```

Exit

### Topology 03







## **Practical App Network II - Lecture 08 - Topology 01**

### **Edge**

enabl

config t

hostname Edge01

interface vlan 1

ip address 10.0.10.3 255.255.255.0

no shutdown

vlan 2

name vlan2

vlan 3

name vlan3

vlan 4

name vlan4

vlan 5

name wlan

interface range fa0/24

switchport mode trunk

interface range fa0/1-7

switchport mode access

switchport access vlan 2

interface range fa0/8-14

switchport mode access

switchport access vlan 3

interface range fa0/15-21

switchport mode access

switchport access vlan 4

interface range fa0/22-23

switchport mode access

switchport access vlan 5

ip default-gateway 10.0.10.1

end

### **Core switch**

enabl

config t

hostname CoreSW



ip routing

interface vlan 1

ip address 10.0.10.1 255.255.255.0

no shutdown

vlan 2

name vlan2

interface vlan 2

ip address 10.0.20.1 255.255.255.0

no shutdown

vlan 3

name vlan3

interface vlan 3

ip address 10.0.30.1 255.255.255.0

no shutdown

vlan 4

name vlan4

interface vlan 4

ip address 10.0.40.1 255.255.255.0

no shutdown

vlan 5

name wlan

interface vlan 5

ip address 10.0.50.1 255.255.255.0

no shutdown

interface range fa0/1-5

switchport mode access

switchport access vlan 1

interface range fa0/6-24

switchport trunk encapsulation dot1q

switchport mode trunk

ip route 0.0.0.0 0.0.0.0 10.0.10.2

spanning-tree vlan 1,2,3,4,5 root primary

end

**core Router**

```
enable  
Config t  
hostname CoreRouter
```

```
Interface fa0/0  
IP address 10.0.10.2 255.255.255.0  
No sh
```

```
Interface fa0/1  
IP address 192.168.1.2 255.255.255.0  
No sh
```

```
IP route 10.0.10.0 255.255.255.0 fa0/0  
IP route 10.0.20.0 255.255.255.0 fa0/0  
IP route 10.0.30.0 255.255.255.0 fa0/0  
IP route 10.0.40.0 255.255.255.0 fa0/0  
IP route 10.0.50.0 255.255.255.0 fa0/0  
IP route 0.0.0.0 0.0.0.0 fa0/1
```

#### **Internet Router**

```
enable  
Config t  
hostname InternetRouter
```

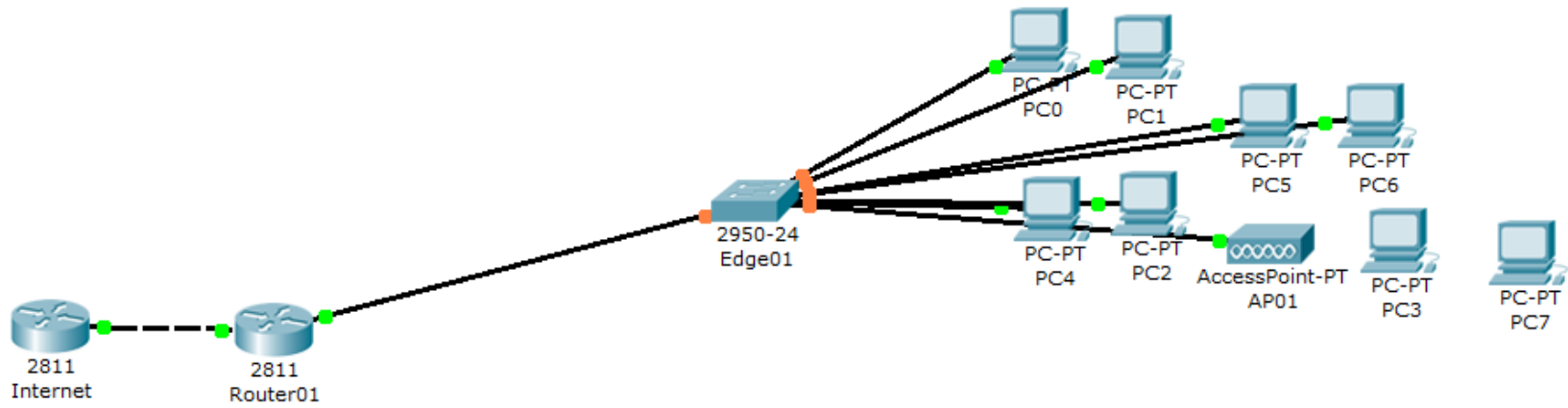
```
Interface fa0/1  
IP address 192.168.1.254 255.255.255.0  
No sh
```

```
interface loopback 0  
no sh  
ip address 8.8.8.8 255.255.255.255
```

```
interface loopback 1  
no sh  
ip address 4.2.2.2 255.255.255.255
```

```
IP route 10.0.10.0 255.255.255.0 fa0/1  
IP route 10.0.20.0 255.255.255.0 fa0/1  
IP route 10.0.30.0 255.255.255.0 fa0/1  
IP route 10.0.40.0 255.255.255.0 fa0/1  
IP route 10.0.50.0 255.255.255.0 fa0/1  
IP route 192.168.1.0 255.255.255.0 fa0/1  
IP route 0.0.0.0 0.0.0.0 fa0/1
```

### Topology 04



#### **Topology 04**

##### **Edge**

enabl

config t

hostname Edge01

interface vlan 1

ip address 10.0.10.2 255.255.255.0

no shutdown

vlan 2

name vlan2

vlan 3

name vlan3

vlan 4

name vlan4

vlan 5

name wlan

interface range fa0/24

switchport mode trunk

interface range fa0/1-7

switchport mode access

switchport access vlan 2

interface range fa0/8-14

switchport mode access

switchport access vlan 3

interface range fa0/15-21

switchport mode access

switchport access vlan 4

interface range fa0/22-23

switchport mode access

switchport access vlan 5

ip default-gateway 10.0.10.1

end

##### **Core Router**



```
enable
Config t
hostname Router01
```

```
Interface fa0/0
IP address 10.0.10.1 255.255.255.0
No sh
```

```
interface fa0/0.1
encapsulation dot1q 2
IP address 10.0.20.1 255.255.255.0
No sh
```

```
interface fa0/0.2
encapsulation dot1q 3
IP address 10.0.30.1 255.255.255.0
No sh
```

```
interface fa0/0.3
encapsulation dot1q 4
IP address 10.0.40.1 255.255.255.0
No sh
```

```
interface fa0/0.4
encapsulation dot1q 5
IP address 10.0.50.1 255.255.255.0
No sh
```

```
Interface fa0/1
IP address 192.168.1.2 255.255.255.0
No sh
```

```
IP route 0.0.0.0 0.0.0.0 fa0/1
```

#### **Internet Router**

```
enable
Config t
hostname InternetRouter
```

```
Interface fa0/1
IP address 192.168.1.1 255.255.255.0
No sh
```

```
interface loopback 0
no sh
```



```
ip address 8.8.8.8 255.255.255.255
```

```
interface loopback 1
```

```
no sh
```

```
ip address 4.2.2.2 255.255.255.255
```

```
IP route 10.0.10.0 255.255.255.0 fa0/1
```

```
IP route 10.0.20.0 255.255.255.0 fa0/1
```

```
IP route 10.0.30.0 255.255.255.0 fa0/1
```

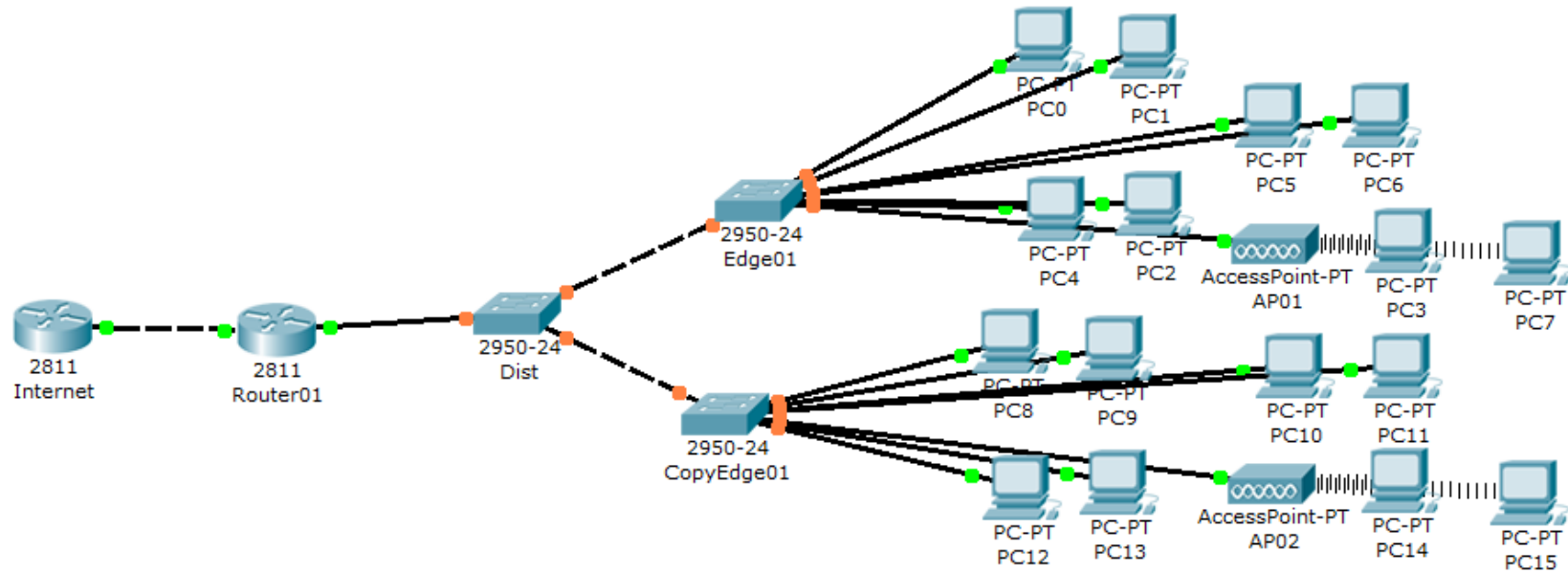
```
IP route 10.0.40.0 255.255.255.0 fa0/1
```

```
IP route 10.0.50.0 255.255.255.0 fa0/1
```

```
IP route 192.168.1.0 255.255.255.0 fa0/1
```

```
IP route 0.0.0.0 0.0.0.0 fa0/1
```

## Topology 05







### **Topology 05**

#### **Edge02**

enabl

config t

hostname Edge02

interface vlan 1

ip address 10.0.10.4 255.255.255.0

no shutdown

vlan 2

name vlan2

vlan 3

name vlan3

vlan 4

name vlan4

vlan 5

name wlan

interface range fa0/24

switchport mode trunk

interface range fa0/1-7

switchport mode access

switchport access vlan 2

interface range fa0/8-14

switchport mode access

switchport access vlan 3

interface range fa0/15-21

switchport mode access

switchport access vlan 4

interface range fa0/22-23

switchport mode access

switchport access vlan 5

ip default-gateway 10.0.10.1

end



**Distributor**

enabl

config t

hostname dist

interface vlan 1

ip address 10.0.10.100 255.255.255.0

no shutdown

vlan 2

name vlan2

vlan 3

name vlan3

vlan 4

name vlan4

vlan 5

name wlan

interface range fa0/1-24

switchport mode trunk

spanning-tree vlan 1,2,3,4,5 root primary

end