Skills Assessment (OSPF) – Student Training Exam

* 1. *Initialize and reload the routers and switches.*

R1# erase startup-config

R1# reload

erase startup-config

reload

S1# erase startup-config

S1# delete vlan.dat

S1# reload

erase startup-config

delete vlan.dat

reload

S2# show flash

show flash

*Routerek:*

No ip domain look up

Hostname

Enable secret class

Line console 0

Logging synchronous

Password cisco

Logging sinchronus

Login

Line vty 0 4

Password cisco

login

Service password-encryption

Banner motd #Unauthorized Access is Prohibited!#

*R1*

interface serial 0/0/0  
clock rate 128000  
ip address 172.27.123.1 255.255.255.252  
description Internet  
no shutdown  
exit

interface gi 0/1  
ip address 172.27.0.1 255.255.255.0  
description S1  
no shutdown  
exit

int loopback 1

ip address 172.27.1.1 255.255.255.0

int loopback 2

ip address 172.27.2.1 255.255.255.0

int loopback 3

ip address 172.27.3.1 255.255.255.0

*R2*

interface serial 0/0/0  
clock rate 128000  
ip address 172.27.123.2 255.255.255.252  
description R1  
no shutdown  
exit

interface serial 0/0/1  
clock rate 128000  
ip address 172.27.123.5 255.255.255.252  
description R3  
no shutdown  
exit

int loopback 0

ip address 209.165.200.225 255.255.255.248

description Simulated Internet Connection

ip route 0.0.0.0 0.0.0.0 loopback 0

*R3*

interface gi 0/1  
ip address 172.27.0.3 255.255.255.0  
description S3  
no shutdown  
exit

interface serial 0/0/0  
ip address 172.27.123.6 255.255.255.252  
description Internet  
no shutdown  
exit

int loopback 4

ip address 172.27.4.1 255.255.255.0

int loopback 5

ip address 172.27.5.1 255.255.255.0

int loopback 6

ip address 172.27.6.1 255.255.255.0

*S1*

interface vlan 1

ip address 172.27.0.11 255.255.255.0

no shutdown

ip default-gateway 172.27.0.2

interface range fa0/1-4

switchport mode trunk

switchport trunk native vlan 1

interface range fa0/5-24 g0/1-2

switchport mode access

switchport nonegotiate

interface range fa0/7-24 g0/1-2

shutdown

*S2*

interface vlan 1

ip address 172.27.0.12 255.255.255.0

no shutdown

ip default-gateway 172.27.0.2

interface range fa0/1-4

switchport mode trunk

switchport trunk native vlan 1

interface range fa0/5-24 g0/1-2

switchport mode access

switchport nonegotiate

interface range fa0/5-17 fa0/19-24 g0/1-2

shutdown

*S3*

interface vlan 1

ip address 172.27.0.13 255.255.255.0

no shutdown

ip default-gateway 172.27.0.2

interface range fa0/1-4

switchport mode trunk

switchport trunk native vlan 1

interface range fa0/5-24 g0/1-2

switchport mode access

switchport nonegotiate

interface range fa0/6-17 fa0/19-24 g0/1-2

shutdown

PC-A

172.27.0.21

255.255.255.0

172.27.0.2

PC-B

172.27.0.22

255.255.255.0

172.27.0.2

PC-C

172.27.0.23

255.255.255.0

172.27.0.2

*S1*

**–PVST+**  
spanning-tree mode rapid-pvst  
spanning-tree vlan 1 root primary  
int f0/6

spanning-tree portfast

spanning-tree bpduguard enable

*S2*

**–PVST+**  
spanning-tree mode rapid-pvst

int f0/18

spanning-tree portfast

spanning-tree bpduguard enable

*S3*

**–PVST+**  
spanning-tree mode rapid-pvst

spanning-tree vlan 1 root secondary  
int f0/18

spanning-tree portfast

spanning-tree bpduguard enable

*R1*

int g0/1

standby 1 ip 172.27.0.2

standby 1 priority 150

standby 1 preempt

*R3*

int g0/1

standby 1 ip 172.27.0.2

*S1*

int range f0/3-4

channel-group 1 mode active

*S3*

int range f0/3-4

channel-group 1 mode passive

*R1*

exit

router ospf 1  
router-id 1.1.1.1  
network 172.27.0.0 0.0.0.255 area 0

network 172.27.1.0 0.0.0.255 area 1

network 172.27.2.0 0.0.0.255 area 1

network 172.27.3.0 0.0.0.255 area 1

network 172.27.123.0 0.0.0.3 area 0

passive-interface GigabitEthernet0/1  
passive-interface Lo 1  
passive-interface Lo 2

passive-interface Lo 3  
area 1 range 172.27.0.0 255.255.255.0

exit

int s0/0/0

bandwidht 128

ip ospf cost 7500

ip ospf authentication massage-digest

ip ospf massage-digest-key 1 md5 CISCO

*R2*

router ospf 1  
router-id 2.2.2.2  
network 172.27.123.0 0.0.0.3 area 0

network 172.27.123.4 0 0.0.0.3 area 0

default-information originate

auto-cost reference-bandwidth 1000

exit

int s0/0/0

bandwidht 128

int s0/0/1

bandwidht 128

int s0/0/0

ip ospf cost 7500

ip ospf authentication massage-digest

ip ospf massage-digest-key 1 md5 CISCO

int s0/0/1

ip ospf authentication massage-digest

ip ospf massage-digest-key 1 md5 CISCO

*R3*

router ospf 1  
router-id 3.3.3.3  
network 172.27.0.0 0.0.0.255 area 0

network 172.27.4.0 0 0.0.0.255 area 3

network 172.27.5.0 0 0.0.0.255 area 3

network 172.27.6.0 0 0.0.0.255 area 3

network 172.27.123.4 0.0.0.3 area 0

passive-interface GigabitEthernet0/1  
passive-interface Lo 4  
passive-interface Lo 5

passive-interface Lo 6  
area 3 range 172.27.4.0 255.255.252.0

default-information originate

auto-cost reference-bandwidth 1000

exit

int s0/0/1

bandwidht 128

ip ospf authentication massage-digest

ip ospf massage-digest-key 1 md5 CISCO

int s0/0/1

ip ospf authentication massage-digest

ip ospf massage-digest-key 1 md5 CISCO