Section 1:

NOTE: All of these commands are done in conf t mode

Q1.

*For Nairobi router:*

hostname Nairobi

banner motd +Hello+

*For Tokyo switch:*

hostname Tokyo

banner motd +Hello+

*For Lisbon switch*

hostname Lisbon:a

banner motd +Hello+

Q2.

*To create vlan on both switches:*

vlan 15

name Centralbank

vlan 50

name Royalmint

vlan 150

name Management

*On Lisbon switch:*

interface range g1/0/1 - 3

switchport mode access

switchport access vlan 15

*And:*

interface range g1/0/11 - 13

switchport mode access

switchport access vlan 50

*To assign ports for 2 vlans*

Q3.

*To configure router on switch*

interface g0/0/1

no shutdown

exit

*then we create sub interfaces*

interface g0/0/1.15

encapsulation dot1Q 15

ip address 213.17.144.254 255.255.255.128

exit

interface g0/0/1.50

encapsulation dot1Q 50

ip address 165.45.191.254 255.255.224.0

exit

interface g0/0/1.150

encapsulation dot1Q 150

ip address 55.252.16.254 255.255.255.128

exit

*then we need to trunk the connection from switch by using trunk*

*on the Tokyo switch*

interface g1/0/11

switchport mode trunk

Q4.

the ip for tokyo is 55.252.16.253

the ip for lisbon is 55.252.16.252

*on both switches*

interface vlan 150

ip address 55.252.16.253 255.255.255.240 for tokyo switch

ip address 55.252.16.252 255.255.255.240 for lisbon switch

*on Lisbon switch we configure SSH*

ip domain-name ccna.lab

username cisco privilege 15 secret cisco

crypto key generate rsa general-keys modulus 1024

line vty 0 15

transport input ssh

login local

exit

Q5.

spanning-tree mode rapid-pvst

*on Tokyo switch we use*

spanning-tree vlan 50 root primary

*on Lisbon switch we use*

spanning-tree vlan 15 root primary

*and to make all access ports portfast we use*

interface range g1/0/1 - 3

spanning-tree portfast

interface range g1/0/11 - 13

spanning-tree portfast

Q6.

interface g1/0/3

switchport port-security

switchport port-security maximum 2

switchport port-security violation protect

switchport port-security mac-address sticky

Q7.

*on both switches we do:*

interface range g1/0/5 - 6

Switchport mode trunk

Switchport trunk native vlan 150

channel-group 1 mode active

Q8.

*Interface each sub interfaces by:*

interface interface g0/0/1.15

description Central bank

interface interface g0/0/1.50

description Royal mint

interface interface g0/0/1.150

description Management

*Logging synchronous on both switches:*

no ip domain lookup

line console 0

logging synchronous

Section 2:

Q1:

a)

Show vlan brief: Display the VLAN’s names

Show vlan: VLAN names and numbers will be displayed in 2 tables

b)

Show vlan brief: Display the VLANs’ names and numbers

Show vlan: 2 tables will present VLAN’s names and numbers

c)

Show ip int brief

The table has disabled g1/0/1-2, g1/0/4, g1/0/7-10, g1/0/14-24, and g1/1/1-4

Q2:

a)

Show ip route: connect sub-interfaces

Show run: each sub-description, interface's encapsulation command, and IP address are displayed underneath

b)

Show int trunk: 3 VLANs will be shown

c)

Incorrect routing information being recorded in the routing table

Devices can not interact correctly with the others

Connected routes are not being recognized

Q3:

a)

Show ip int brief: The precise IPaddress and "vlan 150" of the Management IP name will be shown at the bottom of the table

b)

Show ssh

c)

Wrong default-gateway configuration

Q4:

a)

Spanning-tree vlan 50 root priority

b)

Show port-security int g1/0/3

c)

SU

d)

P