CCIE Enterprise Infrastructure v1.1:

Module 1 :Design Lab v2

Question 2

Which features must be implemented on which switches to meet the layer 2 requirements? Select all that apply.

Switches				
Required Features	**SW110**	**SW211**	**SW101**	**SW201**
BPDU Guard on non-uplink ports				
VLAN pruning				
CDP				
Loop guard				
Layer 2 maximum transmission unit (MTU) jumbo frames				
PortFast on access ports				

Answer:

Switches				
Required Features	**SW110**	**SW211**	**SW101**	**SW201**
BPDU Guard on non-uplink ports	✔	✔	✔	✔
VLAN pruning	✔	✔		
CDP	✔			
Loop guard	✔	✔		
Layer 2 maximum transmission unit (MTU) jumbo frames		✔		✔
PortFast on access ports	✔	✔		

Question 3

Which two spanning tree configurations meet the requirements of Charlie Brown? (Choose two)

A. **Make SW201 the root for the VLANs and make SW202 the secondary.**

B. **Reduce the forward time of the spanning tree.**

C. **Implement MSTP.**

D. **Reduce the hello timer of the spanning tree.**

E. **Make SW201 the root for the even VLANs and make SW202 the root for the odd VLANs.**

Answer: D, E

Question 4

Which four design recommendations for SW201 and SW202 meet the core capacity requirements?

(Choose Four)

A. **Use trunk and VLAN pruning on the members of SW201.**

B. **Deploy a Layer 3 port channel.**

C. **Enable the LACP feature.**

D. **Use load balancing of type vlan-src-dst-mixed-ip-port.**

E. **Use load balancing of type vlan-src-ip**

F. **Set the port channel to active mode for new connections.**

G. **Enable the PAgP standard for both switches.**

H. **Disable the IEEE 802.3ad standard for both switches.**

I. **Use trunk and VLAN pruning on the port channel interfaces of both switches.**

Answer: C.D.E.I

Question 5 (S)

Which three recommendations will improve security and scale at Branch #3? (Choose 3)

A. **Enable the passive interface default feature and disable passive interfaces toward the downstream switches.**

B. **Implement a stub configuration on all the routing devices at Branch #3 and apply summary routes on SW601 and SW602.**

C. **Implement MD5 authentication between all neighbors by using the same key on R24, R61 and R62. User different keys on SW601 and SW602.**

D. **Implement SHA-256 authentication between all neighbors by using different keys on R24, R61, R62, SW601 and SW602.**

E. **Implement a stub configuration on all routing devices at Branch #3 and apply summary routes on R61 and R62.**

F. **Implement SHA-256 authentication between all neighbors by using the same key on R24, R61, R62, SW601 and SW602**

G. **Enable the passive interface default feature and disable passive interfaces toward R24 and on downstream switches.**

H. **Implement a stub configuration on all routing devices at Branch #3 that do not have summary routes.**

Answer: E, F, G

Question 6 (Part 1) (S)

Which two recommendations for the OSPF deployment meet the requirements of Charlie Brown? (Chose two)

A. **Set the priority of each spoke tunnel to 0 to mitigate DR/BDR election**

B. **Place all the routers in same area**

C. **Place the hub in area 0 and place each spoke in a separate area**

D. **Use OSPF broadcast on the hub and broadcast on all the spokes**

E. **Use OSPF point-to-multipoint on all the spokes and point-to-multipoint on the hub.**

Answer: B and E

Question 6 (Part 2) (S)

Based on your recommendation for the OSPF deployment, how will OSPF operate differently than the current environment?

a. **The hub will have a different copy of the link-state database than the spokes and routing changes on the spokes can trigger an SPF recalculation on all the DMPVN routes.**
b. **All the routers will share an identical copy of the link-state database and routing changes on the spokes cannot trigger an SPF recalculation on all the DMVPN routers**
c. **The hub will have a different copy of the link-state database than the spokes, and OSPF will offer load sharing based on delay.**
d. **The hubs will have a different copy of the link-state database than the spokes and the OSPF will offer load sharing based on cost.**
e. **All the routers will share an identical copy of the link-state database, and the routing changes on the spokes can trigger an SPF recalculation on all the DMVPN routers.**
f. **All the routers will have different copies of the link-state database, and routing changes on the spokes can trigger an SPF recalculation on all the DMVPN routers.**

Answer: E

Question 7

Which two recommendations achieve the goal of transitioning Branch #3 to OSPF? (Choose two).

A. **Use the metric feature to specify a metric value.**

B. **Redistribute BGP into OSPF with a metric of type 2 on R61 and R62.**

C. **Use the default metric as the metric value.**

D. **Redistribute BGP into OSPF with a metric of type 1 and subnets features enabled on R61 and R62.**

E. **Redistribute BGP into OSPF with the subnets feature enabled and without a metric type specified on R61 and R62.**

Answer: A and E

Question 8

What must be deployed to R1, R3, R21 and R61 to take advantage of the service provider BGP offerings?

Select all that apply

Feature Required	R21	R3	R61	R1
Communities				
BGP Peer Group				
IBGP				
Route-Map				
MP-BGP VPNv4				
Origin				
Authentication				

Answer:

Feature Required	R21	R3	R61	R1
Communities		✔		
BGP Peer Group				
IBGP			✔	
Route-Map	✔	✔	✔	
MP-BGP VPNv4		✔		
Origin	✔		✔	
Authentication	✔	✔	✔	