

## Quiz 3: L2 Protocols (Ch 3)

5 Marks total

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

[1 mark] What are the two general types of VLAN design for a campus?

end-to-end or local

[1 mark] Give at least one advantage of each type of design, according to the list provided in the course textbook (i.e. pp. 46-49)

E-to-E: +Grouping, +virtualization, +security, +QoS, +avoiding needless routing, +specialized VLANs

Local: +Simpler, +deterministic/predictable, +better link utilization, +better HA due to matched L2/L3 topology, +finite failure domain, +scalable design

[1 mark; all-or-nothing] Identify at least 3 of the 7 generic types of campus VLAN  
Ref: Ch3, slide 11

- default = VLAN 1 (also Native VLAN by default)
- native = traffic on this VLAN isn't tagged
- data = regular user traffic; may consist of many VLANs
- voice = needed in modern campus networks
- wireless = particularly for controller-based WLANs
- management = for SSH, HTTPS, SNMP access
- garbage or black-hole = for security purposes, VLAN is suspended and never allowed on trunks; all un-used interfaces are placed in this VLAN

[2 marks] Your choice: draw a diagram of the matrix showing the result of mixing and matching the configured parameters on the two sides of:

(a) DTP link; (b) LACP link; or (c) PAgP link.

Whatever you choose **must** use the correct names for the parameter values!

		LACP			
		Active	Passive		
Active	Yes	Yes			
Passive	Yes	No			
		PAgP			
		Desirable	Auto		
Desirable	Yes	Yes			
Auto	Yes	No			
DTP	Dynamic Auto	Dynamic Desirable	Trunk	Access	
Dynamic Auto	Access	Trunk	Trunk	Access	
Dynamic Desirable	Trunk	Trunk	Trunk	Access	
Trunk	Trunk	Trunk	Trunk	Limited Connectivity	
Access	Access	Access	Limited Connectivity	Access	