MODULES 4, 5 Review (on Reused Paper!)

MODULE 4 – Inter-VLAN Routing CONCEPTS (logical or m-choice!)

A) In ***LEGACY Inter-VLAN routing***, each VLAN requires its OWN, SEPARATE, **router** interface.

B) ***Router-on-a-Stick Inter-VLAN routing*** => ONLY ONE **router** interface is required
We use "subinterfaces", which are like SVIs – that is *Software-based Virtual Interfaces* or "logical" (software), NOT "physical" (hardware) interfaces.

i) To configure Inter-VLAN routing **on the switch**, we need to configure the **Switch interface** to the router **as a trunk** and allow the appropriate VLANs

ii) To configure the **ROUTER interface**, we use SUB-interfaces. For example:
interface g0/0.10 // for VLAN 10 **interface g0/0.20** // for VLAN 20 etc.
EACH subinterface will ACT as a DEFAULT Gateway to the PCs in the related VLAN,
so it must be assigned the appropriate IP address, ending (usually) to x.x.x.1 (Ex. 192.168.10.1)

MODULE 5 – Spanning Tree Protocol

VERY BASICS ONLY

A) STP use: To prevent loops

B) STP Operation Steps (SIMPLER). SPECIFY which ports in a switch are Root, Designated or Blocked/Alt

- Elect Root Bridge (Based on LOWER BID (or Bridge Priority -or- MAC address)
- Elect Root Ports (based on LOWER cost to Root Bridge – fast ports have LOWER cost)
- Elect Designated ports => All ports of the root bridge. A port linked to a root port.
- Elect blocked ports (alternate) ports => A port that is NOT a designated or a root port

RECOGNIZE HOW to select the ROOT Bridge, and the ROOT ports and the Designated ports-
as in the EXAMPLES we did in class!!

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C) STP versions: IEEE: STP, Rapid STP (RSTP) Cisco: PVST+ Rapid PVST+