

Lecture 15 - Answers to Lecture Exercises.

PREAMBLE 10101010
 SFD 10101011

Media
 Access
 Control

Exercise 1: How many possible OUI's are there? How many devices can be manufactured for each OUI?

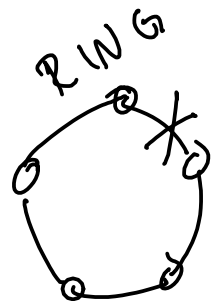
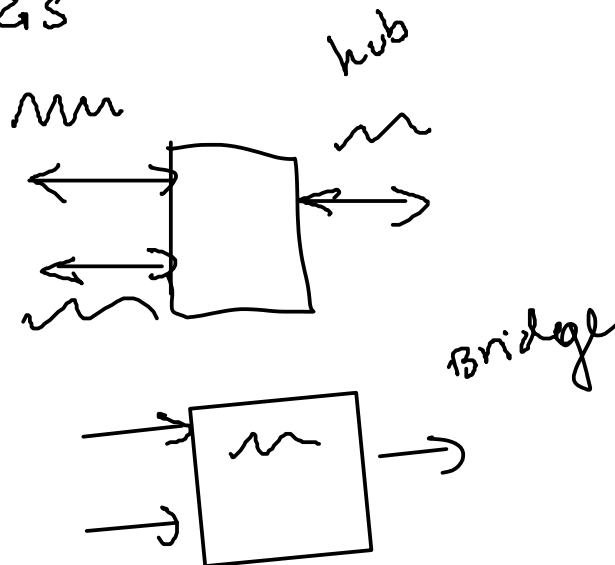
#1 How many MAC addresses? $2^{6 \times 8} = 2^{48}$

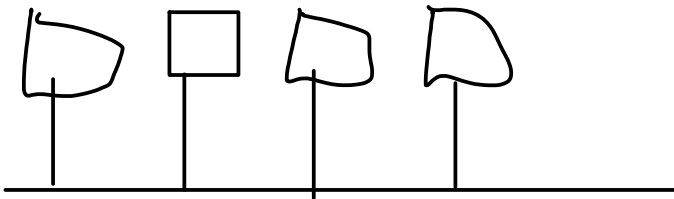
2^{24} per
 OUI

00 12 34 00 0D EF
 └──────────┘ └──────────┘
 OUI

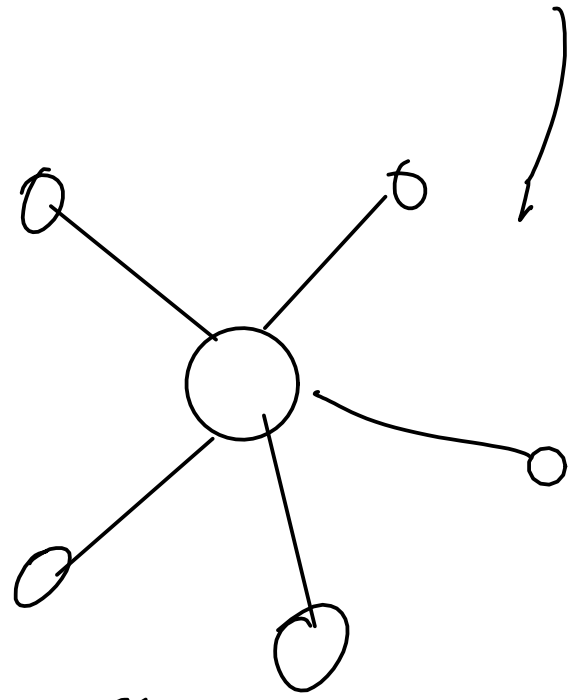
SAMSUNG

Bridge
 vs.
 Hub?



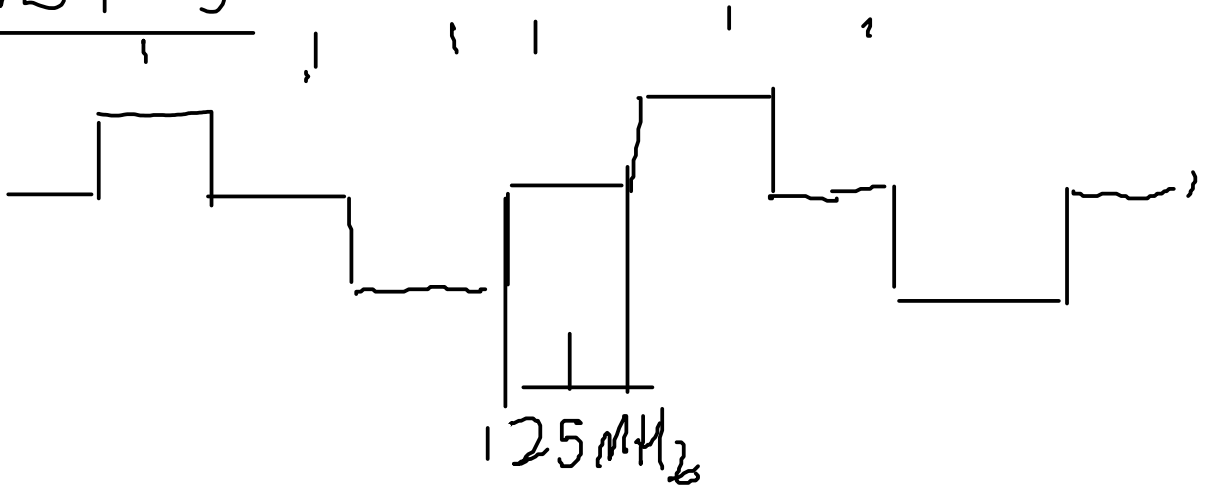


BUS



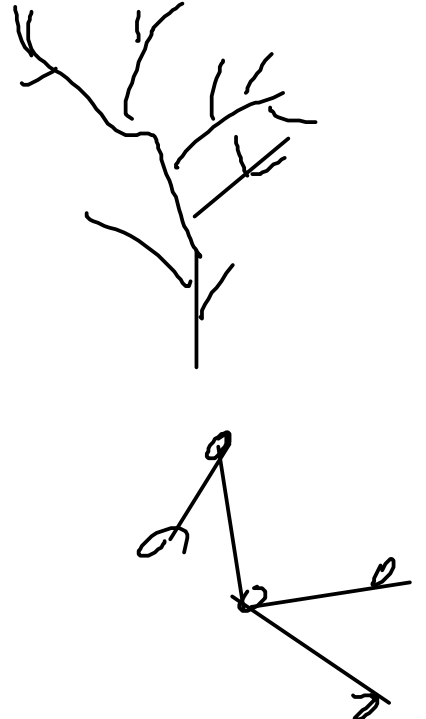
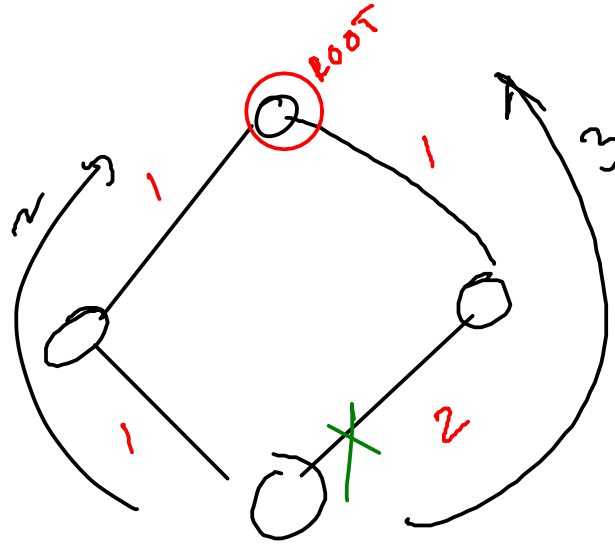
STAR

MLT-3

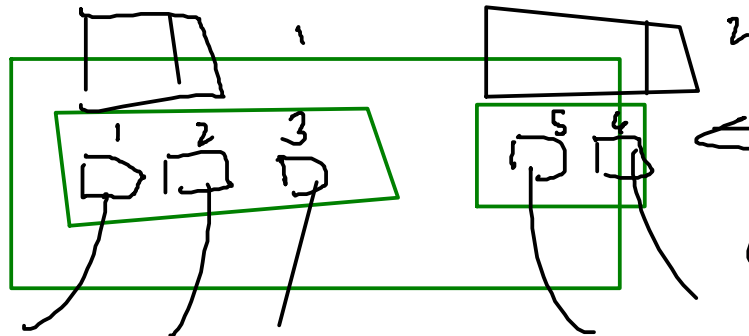


6 byte MAC addr	port number
1:5:7:2:63:9	1
_____	3
_____	9
_____	9

source addresses



Spanning Tree Protocol



PORT-BASED
VLANs
(manually configured)

MAC ADDR	VLAN No.
1:2:5:63:8	1
_____	2
_____	1