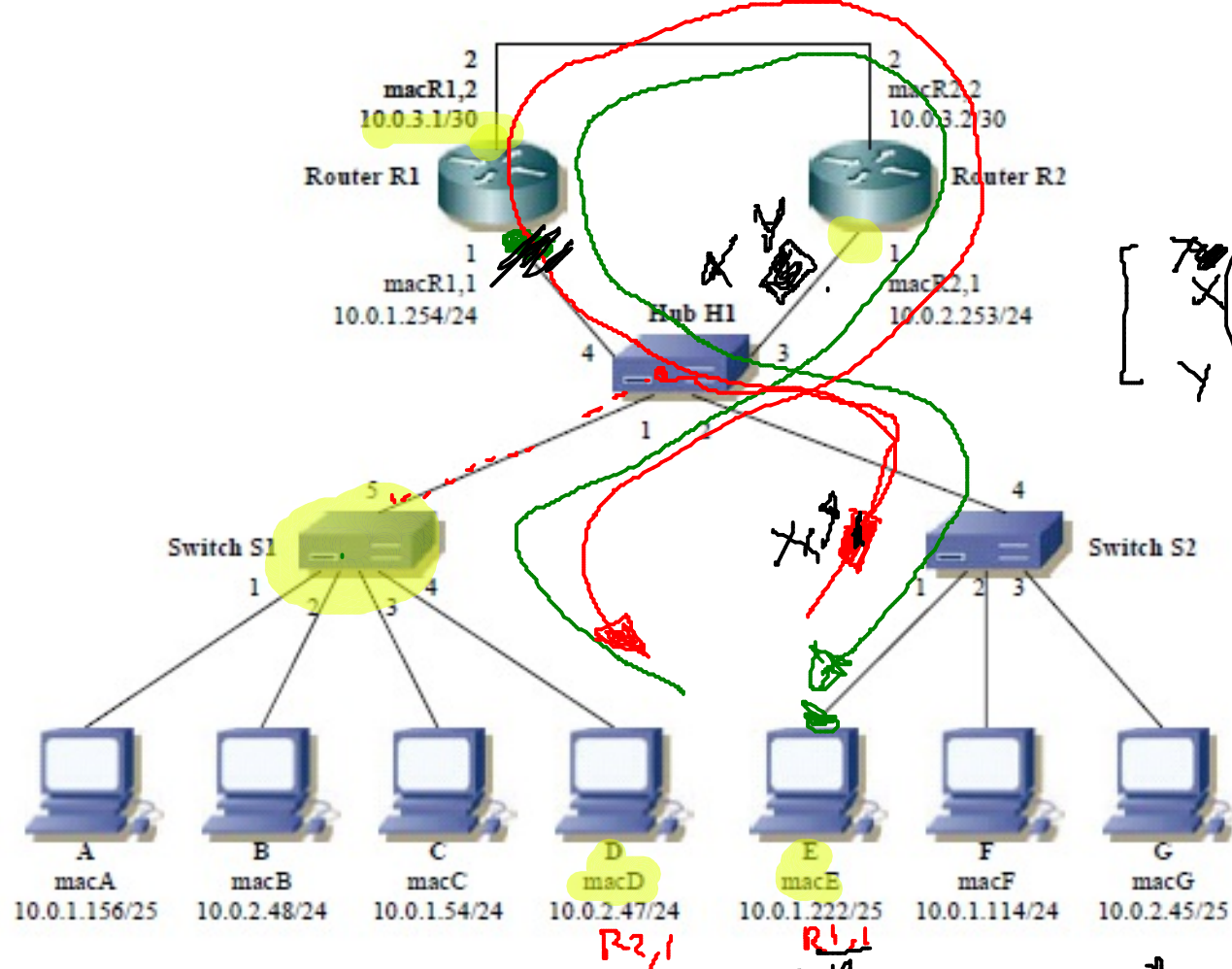




TRACE ROUTE D → E
S1

MAC E MAC R1,1 ip E ip D 64
MAC R2,1 MAC D ip E ip D 62

ICMP error
port unreachable
"

MAC ₀	MAC ₁	IP ₀	IP ₁	TTL	TYP
MAC D	FE...	—	—	—	ARP req IP R2,1
MAC R2,1	MAC D	—	—	—	ARP rep "
MAC D	MAC R2,1	ip D	ip E	1	UDP
MAC R2,1	MAC D	ip R2,1	ip D	64	ICMP error TTL exceeded
MAC D	MAC R2,1	ip D	ip E	2	UDP
MAC R2,1	MAC D	ip R1,2	ip D	63	ICMP error TTL
MAC D	MAC R2,1	ip D	ip E	3	UDP
MAC R1,1	FE...	—	—	—	ARP req, ip E
MAC E	MAC R2,1	—	—	—	ARP rep
MAC R1,1	MAC E	ip D	ip E	1	UDP

$10.0.10/24 \rightarrow R1$
 $10.0.20/24 \rightarrow R2$

ip R1,1 { 2 ips
 ip R2,1

$10.0.11$
 $AS \leq 2^n - 2 \quad n=5$
 $10.0.3.32/27$

$10.0.00000000 \cdot xxx \cdot xxx$
 $\rightarrow 10.0.0.0/24$

10.0.3.000001xx	3.4/30
10.0.3.00001xxx	3.8/29
0001xxxx	3.16/28
001xxxxx	3.32/27
01xxx xxx	3.64/26
1xxx xxx	3.128/25

$10.0.1.0/24 \rightarrow 10.0.00000001 \cdot xxx \cdot xxx$
 $10.0.2.0/24 \rightarrow 10.0.00000010 \cdot xxx \cdot xxx$
 $10.0.3.0/30 \rightarrow 10.0.00000011 \cdot 000000xx$

$[10.0.0.0/22 \rightarrow 10.0.000000xx \cdot xxx \cdot xxx$
 0001
 0110
 1123

