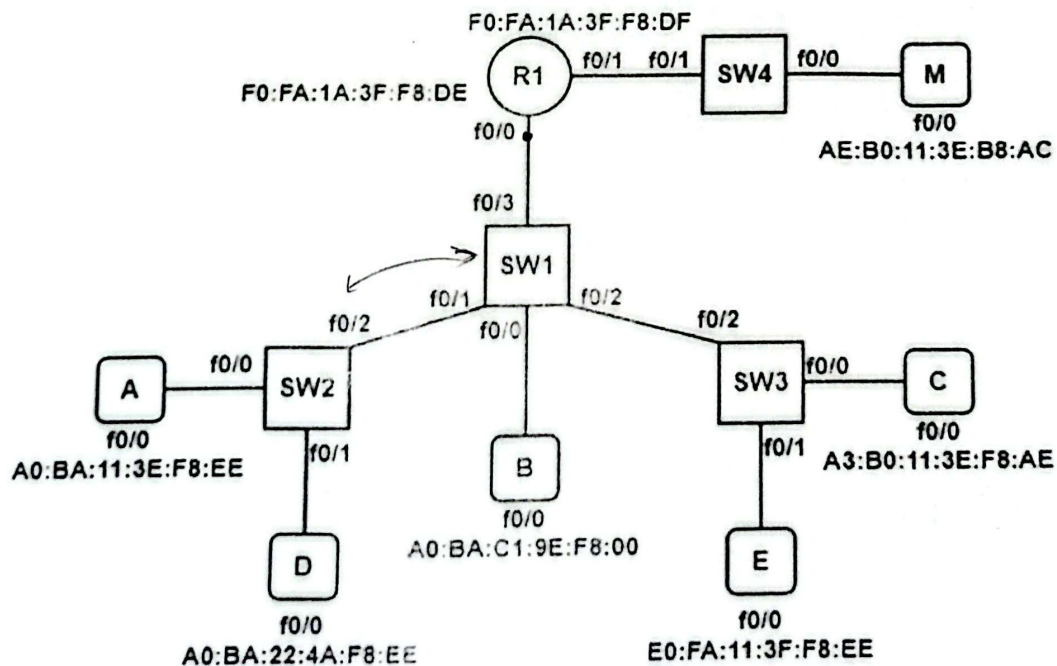1. Given a MAC Address 00:1A:2B:3C:4D:5E
   a. This MAC is a   ✓ Unicast   ▨ Multicast. [1]
   b. This MAC is administered   Locally   ✓ Globally [1]

2. Refer to the diagram below where. Host A wants to send a packet to Host M (IP known only).
   a. What packet will be sent first? [2]
      ✓ Main Frame   ▨ ARP Request Frame
   b. Identify the destination IP & MAC addresses of the frame you sent in (i) [2] *Mention the device name only.*

      Destination IP: ___:___   Destination MAC: _____
   c. Update the table of all the switches after the frame in (i) is sent. [4]
   d. Switch 2 will   broadcast   ▨ unicast the frame sent in (i) [2]

3. Would D ever know the MAC address of B? ▨ Of course   Never [1]

4. Assume A and M successfully communicated their messages. Update the tables again, this time underline the updated device names like "A" [2]

— SW1		SW2		SW3		SW4	
f0/0		f0/0		f0/0		f0/0	
f0/1		f0/1		f0/1		f0/1	
f0/2		f0/2		f0/2			
f0/3							

F0:FA:1A:3F:F8:DF

F0:FA:1A:3F:F8:DE   R1   f0/1   f0/1   SW4   f0/0   M

f0/0   f0/0
                                             AE:B0:11:3E:B8:AC
f0/3

SW1
f0/1   f0/2
f0/2   f0/0   f0/2

f0/0   SW3   f0/0   C
A   SW2   f0/0
f0/0   f0/1   A3:B0:11:3E:F8:AE
A0:BA:11:3E:F8:EE   f0/1   B
                           f0/0
D   A0:BA:C1:9E:F8:00   E

f0/0   f0/0
A0:BA:22:4A:F8:EE   E0:FA:11:3F:F8:EE

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    c. Update the table of all the switches after the frame in (i) is sent. [4]
    d. Switch 2 will　　broadcast　　unicast the frame sent in (i) [2]
3. Would D ever know the MAC address of B?　　Of course　　Never [1]
4. Assume A and M successfully communicated their messages. Update the tables again, this time underline the updated device names like "<u>A</u>" [2]

SW1		SW2		SW3		SW4	
f0/0		f0/0		f0/0		f0/0	M
f0/1		f0/1		f0/1		f0/1	
f0/2		f0/2		f0/2			
f0/3							