1.What is the 48-bit Ethernet address of your computer?

c4: 41: 1e: 75: b1: 52

2. What is the 48-bit destination address in the Ethernet frame?

00 :1e: c1: d9: 01

3. What is the hexadecimal value for the two-byte Frame type field in the Ethernet frame carrying the HTTP GET request? What upper layer protocol does this correspond to?

The hexadecimal value is (0x0800), the protocol corresponds to the (IP) protocol.

4. How many bytes from the very start of the Ethernet frame does the ASCII “G” in “GET” appear in the Ethernet frame? Do not count any preamble bits in your count, i.e., assume that the Ethernet frame begins with the Ethernet frame's destination address.

64 bytes

5. What is the value of the Ethernet source address? Is this the address of your computer, or of gaia.cs.umass.edu (Hint: the answer is *no*). What device has this as its Ethernet address?

Value is c4: 41: 1e: 75: b1: 52, the value is from neither source. The address must be of a server.

6. What is the destination address in the Ethernet frame? Is this the Ethernet address of your computer?

The destination address is 3ComEurope\_7e: d9:01 (00: 1e: c1: 7e: d9: 01). This is not the address of my computer.

7. Give the hexadecimal value for the two-byte Frame type field. What upper layer protocol does this correspond to?

The upper layer protocol is IPv4.

8. How many bytes from the very start of the Ethernet frame does the ASCII “O” in “OK” (i.e., the HTTP response code) appear in the Ethernet frame? Do not count any preamble bits in your count, i.e., assume that the Ethernet frame begins with the Ethernet frame's destination address.

Ethernet header: 14 bytes + IP header bytes + TCP header: 20 (32 with options) = 54bytes (66). Therefore the “O: in “OK” would appear at byte 55 (or byte 67 if we count TCP headers with options).

9. How many Ethernet frames (each containing an IP datagram, each containing a TCP segment) carry data that is part of the complete HTTP “OK 200 ...” reply message?

3.08 frames