1. What is the application layer message (HTTP request in frame 4, and HTTP

response in frame 36)?

The request is an HTTP GET request for /images/layout/logo.png.

Response is OK

2. What is the application layer message size (bytes)?

200 bytes

3. What is the transport layer protocol used to encapsulate the Application Layer

message?

TCP

4. What is the size of the resulting transport layer segment?

1448

5. How many bytes are added by encapsulation in the transport layer?

20 bytes

6. What is the protocol used in the network layer to encapsulate the transport layer

segment?

IP

7. What is the size of the resulting network layer datagram?

20 bytes

8. How many bytes are added by encapsulation in the network layer?

52 bytes

9. What is the protocol used in the data-link layer to encapsulate the network layer

datagram?

Ethernet

10. What is the size of the resulting data-link layer frame?

11. How many bytes are added by encapsulation in the data-link layer?

12. What is the total protocol overhead? (i.e. the total number of bytes added to the

application layer message by the transport, network and data-link layers before it

is handed over to the physical layer for transmission)