**ECE361 – Computer Networks**

**Wireshark Lab 1: HTTP**

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**Mark:**

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|  | **Question** | **Answer** |
| 1 | Is your browser running HTTP version 1.0 or 1.1? What version of HTTP is the  server running? | 1.1    1.1 |
| 2 | What languages (if any) does your browser indicate that it can accept to the  server? | en-us |
| 3 | What is the IP address of your computer? Of the gaia.cs.umass.edu server? | Our Computer: 100.64.193.157  Server: 128.119.245.12 |
| 4 | What is the status code returned from the server to your browser? | 200 |
| 5 | When was the HTML file that you are retrieving last modified at the server? | Thu, 14 Sep 2017 05:59:01 GMT |
| 6 | How many bytes of content are being returned to your browser? | 128 |
| 7 | By inspecting the raw data in the packet content window, do you see any headers within the data that are not displayed in the packet-listing window? If so, name one. | No |
| 8 | Inspect the contents of the first HTTP GET request from your browser to the  server. Do you see an “IF-MODIFIED-SINCE” line in the HTTP GET? | No |
| 9 | Inspect the contents of the server response. Did the server explicitly return the contents of the file? How can you tell? | Yes. It’s right after the header of Line-based text data. |
| 10 | Now inspect the contents of the second HTTP GET request from your browser to the server. Do you see an “IF-MODIFIED-SINCE:” line in the HTTP GET? If so, what information follows the “IF-MODIFIED-SINCE:” header? | Yes.  Thu, 14 Sep 2017 05:59:01 GMT. |
| 11 | What is the HTTP status code and phrase returned from the server in response to this second HTTP GET? Did the server explicitly return the contents of the file?  Explain. | 304. Not Modified.  No.    The contents haven’t been modified thus there is no need for the server to explicitly return them again. It only needs to notify the client to view its cached content. |
| 12 | How many HTTP GET request messages were sent by your browser? | 1 |
| 13 | How many data-containing TCP segments were needed to carry the single HTTP response? | 4 |
| 14 | What is the status code and phrase associated with the response to the HTTP GET request? | Status Code: 200  Response Phrase: OK |
| 15 | Are there any HTTP status lines in the transmitted data associated with a TCPinduced “Continuation”? | Yes. |
| 16 | How many HTTP GET request messages were sent by your browser? To which Internet addresses were these GET requests sent? | 4  <http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html>  <http://gaia.cs.umass.edu/pearson.png>  <http://manic.cs.umass.edu/~kurose/cover_5th_ed.jpg>  <http://caite.cs.umass.edu/~kurose/cover_5th_ed.jpg> |
| 17 | Can you tell whether your browser downloaded the two images serially, or  whether they were downloaded from the two web sites in parallel? Explain. | The downloading of the second image file did not start until finishing the first downloading and being redirected to the second one.  Due to the redirection during the download of the second image, the download seems to happen serially. But generally the downloading should be parallel. |
| 18 (optional) | What is the server’s response (status code and phrase) in response to the initial HTTP GET message from your browser? | Status Code: 401  Response Phrase: Unauthorized |
| 19  (optional) | When your browser’s sends the HTTP GET message for the second time, what  new field is included in the HTTP GET message? | Authorization: Basic d2lyZXNoYXJrLXN0dWRlbnRzOm5ldHdvcms=\r\n |