Question 1:

1. My browser and server *both* are using *HTTP version 1.1*.

2. Browser indicates that it can accept "*en-GB*" , "*en*" languages (English).

3. The ip address of my computer is *192.168.43.75* and of the server is *128.119.245.12.*

4. *200* (with Description/Phrase 'OK') is the status code returned from the server to my browser.

5. It was last modified on *Wed, 03 Mar 2021 06:59:01 GMT*.

6. *128 bytes* is being returned to the browser.

7. No, I do not see any headers that are not displayed in the packet window.

Question 2:

8. No, there is no "IF-MODIFIED-SINCE" line in the first HTTP GET request.

9. Yes, the server explicitly returned the contents of the file. This is evident from the header field "*Line-based text data*" and under it is the text.

10. Yes, there is an "IF-MODIFIED-SINCE" line in the second HTTP GET request and it follows with information "*Wed, 03 Mar 2021 06:59:01 GMT*". (Basically asking server if the given file is modified since this time)

11. In response to the second request the status code is "*304*" with the phrase "*Not Modified*". The server did not return the contents of the file because the file was not modified, so there is no new content to be passed and hence no need to download the file again (file is retrieved from the cache itself).

Question 3:

12. Only one HTTP GET request message was sent by the browser.
Packet number 10 contains the GET message for the Bill of Rights.

13. Packet number 14 contains the status code and phrase associated with the response to the HTTP GET request.

14. The response status code is *200* and the phrase is *OK*.

15. Here, all the data was contained in the single single HTTP response packet. So, no data-containing tcp segments was required. In simple words, 0 data-containing tcp segments required.

Question 4:

16. The browser sent 3 HTTP GET request messages (packets numbered 21, 27 and 47). It sent HTTP GET requests to the main html page as well as locations of images i.e., packet 21 and packet 27 were sent to IP address 128.119.245.12 while packet 47 was sent to IP address 178.79.137.164 .

17. The two images were downloaded serially. We can see that the GET request for the first image is packet number 27 and was retrieved in packet number 32 with status of 200 OK. Then the browser sent the GET request for the second image. This indicates that the first image was requested and retrieved before sending the request for the second image. So, here images were downloaded serially.

Question 5:

18. Packet 19 is the response to the initial HTTP GET message from the browser. It has status code *401* and response phrase *Unauthorized*.

19. The second HTTP GET message includes *Authorization: Basic* field additionally.