Q 1. Generally, WireShark columns are arranged in following order (which you can observe on your machine): (0.75x6 = 4 marks)

No., Time, Source, Destination, Protocol, Length.

Being a security expert, and to have a better analysis, how do you arrange and add following columns

in WireShark to display the information:

* Date &amp; time in UTC
* Source IP and source port
* Destination IP and destination port
* HTTP host
* HTTPS server
* Info

Please include all relevant screenshots and also the final screenshot of your WireShark application.

Q 2. Load the provided file into WireShark and then answer the following questions along with necessary screnshots (1 mark x 6 = 6 marks)

a. Identify the http request packet

b. Identify the http response packet

c. Display the statistics of the TCP and UDP packets

d. List out the TCP packets whose syn. And ack. Flags are on.

e. List out the TCP and UDP packets where destination port=80.

f. List out the ARP packets.

Q3. Use the template provided below to write a C program that will create a web server on your local machine at port 4444. When you open your browser and type localhost:4444, you should see the message “Hello World” in your web browser. Include comments in your code. (4 marks)

#include<sys/socket.h>

#include <stdlib.h>

#include <netinet/in.h>

#include <string.h>

#define PORT 4444

int main(int argc, char const \*argv[])

{

int server\_fd, new\_sock;

struct sockaddr\_in address;

char \*hello = "Hello World";

// write your code here

printf(“Hello message sent to browser”);

return 0;

}