# CYB 310 Module Two Lab Worksheet

Complete this worksheet by replacing the bracketed phrases in the Response column with the relevant information.

| **The OSI Model** | |
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| **Prompt** | **Response** |
| What HTTP message type is used to request data? | The HTTP message type used to request data is GET. |
| Identify which flags are set in each of the three segments of the three-way handshake. | **SYN**: The first segment, used to initiate a connection, sets the SYN flag.  **SYN-ACK**: The second segment in response sets both SYN and ACK flags.  **ACK**: The third segment confirms the connection by setting the ACK flag. |
| What command can be used on a Windows machine to view the MAC address? | The command **ipconfig /all** can be used on a Windows machine to view the MAC address. |

| **Network Troubleshooting** | |
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| **Prompt** | **Response** |
| In the lab, “Troubleshooting a Suspected DNS issue Using CLI Utilities,”**Step 11,** type your name after the command prompt and take a screenshot of the output after running the nslookup command. | A computer screen with white text  Description automatically generated |
| In the lab, “Troubleshooting a Suspected DNS issue Using CLI Utilities,”**Step 14,** take a screenshot of the webpage after correcting the URL. | A screenshot of a computer  Description automatically generated |
| What utility can be used to find out the IP address, subnet mask, and default gateway configured on a computer? | The utility **ipconfig /all** can be used to find out detailed information including the IP address, subnet mask, and default gateway configured on a computer. |
| What is the function of the ipconfig/release and the ipconfig/renew commands? | **ipconfig/release**: This command releases the IP address assigned to the computer.  **ipconfig/renew**: This command renews the IP address, allowing the computer to request a new IP address from the DHCP server. |
| What type of devices would be better served to have static IP configuration? | Devices that require constant network availability and accessibility, such as servers, network printers, or other critical infrastructure components, would be better served to have static IP configuration. |

| **TCP/IP Protocols – The Core Protocols** | |
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| **Prompt** | **Response** |
| In the lab, “Capture and Analyze Transport Layer Protocol Packets,”**Step** **10,** take a screenshot of the output of the field details of the TCP segment. | A computer screen shot of a program  Description automatically generated |
| In the lab, “Capture and Analyze a UDP Datagram,”**Step** **8,** take a screenshot of the output of the User Datagram Protocol field details. | A screenshot of a computer  Description automatically generated |
| What type of packet is an ARP request? | An ARP request is a broadcast packet used to request the MAC address of a host on the local network segment. |
| What type of packet is an ARP reply? | An ARP reply is a unicast packet sent in response to an ARP request, providing the requested MAC address. |