**Part 1: Examine HTTP Web Traffic**

**Step 1: Switching to Simulation Mode**  
 Done as per instructions.

**Step 2: Generate web (HTTP) traffic**

**Look at the Web Client web browser page. Did anything change?**  
 No, nothing changed visually because the request is still being processed and the data has not yet been fully received.

**Examining the OSI Model (First HTTP Event in Event List)**

**What information is listed in the numbered steps directly below the In Layers and Out Layers boxes for Layer 7?**  
 The request to retrieve the webpage is encapsulated into an HTTP GET request and passed down the OSI layers.

**What is the Dst Port value for Layer 4 under the Out Layers column?**  
 The destination port is **80**, which is the standard port for HTTP.

**What is the Dest. IP value for Layer 3 under the Out Layers column?**  
 The destination IP is the **IP address of the web server**.

**What information is displayed at Layer 2 under the Out Layers column?**  
 The source and destination **MAC addresses**. The destination MAC is the **next-hop router or switch**, and the source MAC is the **PC's network interface**.

**Outbound PDU Details Tab (Comparison with OSI Model)**

**What common information is listed under the IP section of PDU Details as compared to the OSI Model tab? With which layer is it associated?**  
 The **source and destination IP addresses** appear in both places. This information is associated with **Layer 3 (Network Layer)**.

**What common information is listed under the TCP section of PDU Details as compared to the OSI Model tab, and with which layer is it associated?**

The **source and destination port numbers** appear in both places. This is associated with **Layer 4 (Transport Layer)**.

**What is the Host listed under the HTTP section of the PDU Details? What layer would this information be associated with under the OSI Model tab?**  
 The host listed is [**www.osi.local**](http://www.osi.local). This information is associated with **Layer 7 (Application Layer)**.

**Further Analysis**

**Comparing the information displayed in the In Layers column with that of the Out Layers column, what are the major differences?**  
 The **In Layers column** shows **the response from the web server**, while the **Out Layers column** shows **the request sent from the client**. The direction of data flow is also indicated by arrows.

**How many tabs are displayed with this event? Explain.**  
 There are **three tabs** (OSI Model, Inbound PDU Details, Outbound PDU Details). This is because this event includes both **incoming (server response)** and **outgoing (client request)** traffic.

**Part 2: Display Elements of the TCP/IP Protocol Suite**

**Step 1: View Additional Events**

**What additional Event Types are displayed?**  
 Additional protocols include:

* **ARP (Address Resolution Protocol)** – Resolves MAC addresses.
* **DNS (Domain Name System)** – Converts domain names into IP addresses.
* **TCP events** – Establishes and terminates connections.

**DNS Analysis**

**What information is listed in the NAME field in the DNS QUERY section?**  
The field contains [**www.osi.local**](http://www.osi.local), indicating that the client is requesting the IP address for this domain.

**At which device was the PDU captured?**  
 The PDU was captured at the **DNS Server**, where the name resolution took place.

**What is the value listed next to ADDRESS: in the DNS ANSWER section of the Inbound PDU Details?**  
The **IP address assigned to** [**www.osi.local**](http://www.osi.local), which is returned by the DNS server.

**TCP Analysis**

**In the numbered list directly below the In Layers and Out Layers, what is the information displayed under items 4 and 5?**  
It shows that the TCP **connection is being established**, including the **SYN and ACK messages** exchanged.

**What is the purpose of the last TCP event?**  
The last event shows the **TCP session termination** (FIN/ACK exchange), indicating that the communication is ending.

**Challenge Questions**

**What port number is the Web Server listening on for the web request?**  
**Port 80** (default port for HTTP).

**What port is the Web Server listening on for a DNS request?**  
**Port 53** (default port for DNS).