Secure Transport Layer

How do we indicate that we want a secure connection when using a web browser?

Why is a shared-secret approach not suitable for use on the Internet?

What is the underlying mathematical concept that makes public/private key encryption secure?

Which of the keys can be sent across the Internet in plain text without compromising security?

Where does the Secure Sockets Layer (SSL) fit in the four-layer Internet architecture?

If you were properly using https in a browser over WiFi in a cafe, which of the following is the greatest risk to your losing credit card information when making an online purchase?

With the Secure Sockets Layer, where are packets encrypted and decrypted?

What changes to the IP layer were needed to make secure socket layer (SSL) work?

If a rogue element was able to monitor all packets going through an undersea cable and you were using public/private key encryption properly, which of the following would be the most difficult for them to obtain?

What is the purpose of a Certificate Authority in public/private key encryption?

The ARPANET network was in operation starting in the 1960s. Secure Sockets Layer (SSL) was not invented until the 1980s. How did the ARPANET insure the security of the data on its network?

Interpreting Caesar Cipher examples.

Network Security

In a networking capacity what do the following mean:

- Authentication
- Authorisation
- Confidentiality
- Non-Repudiation
- Integrity

How do Time Synchronous Tokens work?

What is Secret-key encryption?

What is public-key encryption?

Why was public-key encryption developed?

If SSL/TLS is in use, how confident can a customer using a credit card to pay for goods from a website be that the transaction is secure?

How does an packet filtering proxy firewall work?

How does an application proxy firewall work?

How do intrusion prevention systems work?

How do intrusion detection systems work?

What is a DDOS attack?

What is a Smurf attack?

What is a rootkit?

What is a man-in-the-middle attack?

What can be done to secure wireless LANs?

What is a virus?

What is a worm?

What is a trojan horse?

What is spyware?

What is phishing

What are the benefits of using cloud based malware protection?

OSI/TCP-IP

What is the primary purpose of the OSI network model?

How many layers does the OSI model have?

Which of the OSI layers deals with the shape of connectors for network connections?

Which of the layers is most similar between the OSI and TCP network models?

What layer does the TCP/IP Secure Sockets Layer map to in the OSI network model?

Why does the TCP model combine the OSI Data Link and Physical layers into a single Link layer?

In the OSI model what does layer 1, the Physical, layer do?

In the OSI model what does layer 2, the Data Link, layer do?

In the OSI model what does layer 3, the Network, layer do?

In the OSI model what does layer 4, the Transport, layer do?

In the OSI model what does layer 5, the Session, layer do?

In the OSI model what does layer 6, the Presentation, layer do?

In the OSI model what does layer 7, the Application, layer do?

Researching Networking Standards

Any question from that lab document