CS 372 Introduction to Computer Networks
Self-Check Exercises: Lecture 6 **Solutions**

1) What are the five layers in the Internet Protocol Stack?
   Layer 1: Physical Layer
   Layer 2: Data-Link Layer
   Later 3: Network Layer
   Layer 4: Transport Layer
   Layer 5: Application Layer

2) What are some responsibilities of the Application Layer?
   Determine destination IP address
   Support network applications
   Decide which data which will transit the internet

3) The ___Transport____ layer manages communications from *process* to *process*.

4) As a packet is being constructed and passed "down" to the next layer of the internet protocol stack, a new "header" is added. This process is called ____encapsulation____

5) The *payload* (non-header portion) of a transport-layer segment is __application data__

6) What are some reasons for the layering of network protocols?
   Protocols can be tested independently of one another
   When maintenance is required at one level, changes do not affect other layers
   Can update a the inner workings of a protocol, as long as input/output remain the same
   The complication of dealing with the intermeshed types of hosts and data is lessened

7) What are the seven layers in the ISO protocol stack?
   Layer 1: Physical Layer
   Layer 2: Link Layer
   Layer 3: Network Layer
   Layer 4: Transport Layer
   Layer 5: Session Layer
   Layer 6: Presentation Layer
   Layer 7: Application Layer