# CCNA 640-802 Bible - OSI and TCP/IP models

 1. At which layers of the OSI model do WANs operate? (Choose two.)  A:application layer  B:session layer  C:transport layer  D:network layer  E:datalink layer  F:physical layer  Correct Answers: E, F  Explanation:    A WAN is a data communications network that covers a relatively broad geographic area and that often uses transmission facilities provided by common carriers, such as telephone companies. WAN technologies generally function at the lower two layers of the OSI reference model: the physical layer and the data link layer.    2. While troubleshooting a network connectivity problem, a technician observes steady link lights on both the workstation NIC and the switch port to which the workstation is connected. However, when the ping command is issued from the workstation, the output message "Request timed out." is displayed. At which layer of the OSI model does the problem most likely exist?  A: the session layer  B: the protocol layer  C: the data link layer  D: the access layer  E: the network layer  F: the application layer  Correct Answers: E  Explanation:  TCP/IP includes ICMP, a protocol designed to help manage and control the operation of a TCP/IP network. The ICMP protocol provides a wide variety of information about a network's health and operational status. Control message is the most descriptive part of a name. ICMP helps control and manage IP's work and therefore is considered part of TCP/IP's network layer.    3. At which OSI layer is a logical path created between two host systems?  A: session  B: transport  C: network  D: data link  E: physical  Correct Answers: C  **Explanation:**  The Network layer (also called layer 3) manages device addressing, tracks the location of devices on the network, and determines the best way to move data, which means that the Network layer must transport traffic between devices that aren't locally attached. Routers (layer 3 devices) are specified at the Network layer and provide the routing services within an internetwork.    4. Acknowledgements, sequencing, and flow control are characteristics of which OSI layer?  A: Layer 2  B: Layer 3  C: Layer 4  D: Layer 5  E: Layer 6  F: Layer 7  Correct Answers: C  Explanation:  The Transport layer (Layer 4) defines several functions, including the choice of protocols.  The most important Layer 4 functions are error recovery and flow control. The transport layer may provide for retransmission, i.e., error recovery, and may use flow control to prevent unnecessary congestion by attempting to send data at a rate that the network can accommodate, or it might not, depending on the choice of protocols. Multiplexing of incoming data for different flows to applications on the same host is also performed. Reordering of the incoming data stream when packets arrive out of order is included. Examples include: TCP, UDP, and SPX.    5. Drop
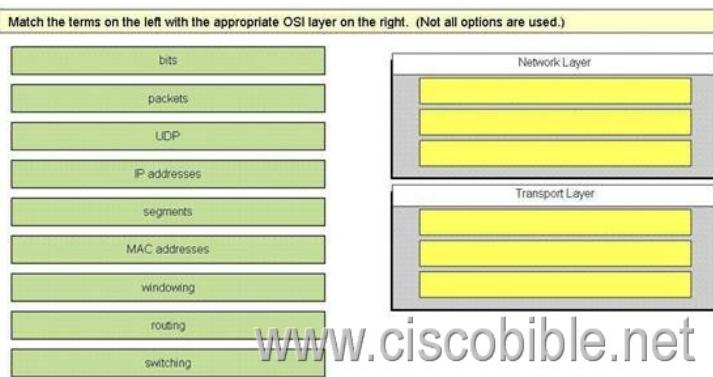


Drag and drop question. Drag the items to the proper locations.  Correct Answers:



 6. A receiving host computes the checksum on a frame and determines that the frame is damaged. The frame is then discarded. At which OSI layer did this happen?  A: session  B: transport  C: network  D: data link  E: physical  Correct Answers: D  Explanation: The Data Link layer provides the physical transmission of the data and handles error notification, network topology, and flow

control. The Data Link layer formats the message into pieces, each called a data frame, and adds a customized header containing the hardware destination and source address. Protocols Data Unit (PDU) on Datalink layer is called frame. According to this question the frame is damaged and discarded which will happen at the Data Link layer.