A. A distance vector advertisement is sent from a node to all other nodes in the network. **False** **(it sends only to the nodes neighbors)**

B. TCP is a byte-stream oriented transport protocol. **True**

C. PIM-SM and PIM-DM are both based on a source-based tree. **False**

D. If an IP packet is fragmented, the destination system is the only place where reassembly occurs. **True**

E.SCTP provides an unreliable congestion controlled transport service. **False (reliable)**

F. Int-serv is generally considered simpler to implement and deploy compared to Diff-serv. False

G. The main purpose with IPv6 was to increase the address space. **True**

H. VPWS provides a virtual link service. **True**

I. RTSP (Real-Time Streaming Protocol) provides time stamps and sequence numbers for proper playback of received data. **False**

J. BitTorrent uses a central tracker to handle peer discovery. **True**

A. OSPF and IS-IS are both based on link state routing. **True**

B. UDP provides an optional flow control. **False**

C. DVMRP is a distance vector protocol for multicast routing. **True**

D. An ICMP error is not sent in response to an IP packet carrying another ICMP error message. True

E.DCCP provides an unreliable congestion-controlled transport service. **True**

F. Diff-serv typically provides IP QoS guarantees for individual application traffic flows. **False**

G. IPv6 has a stronger checksum compared to IPv4. **False**

H. An L1 VPN can be used to provide an Ethernet LAN service. **False**

I. RTP includes a mechanism to ensure timely delivery of data to the receiving host. **False**

J. Napster is a peer-to-peer application using a central directory. **True**

A. RIP uses Dijkstra’s algorithm to compute the best paths. **False**

B. TCP provides a stream-oriented transport service. **True**

C. IGMP provides a multicast routing service. **False**

D. Error reporting is one of the main responsibilities of ICMP. **True**

E.DCCP provides an unreliable congestion-controlled transport service. **True**

F. Diff-serv is a more coarse-grained model of IP QoS compared to Int-serv. **True**

G. In IPv6, only hosts are allowed to fragment IP datagrams. **True**

H. An L1 VPN provides a transparent connection service. **True**

I. RTSP (Real-Time Streaming Protocol) defines a standardized way to encapsulate audio/video data in packets. **False (it’s a protocol for exchanging information)**

J. A peer-to-peer application based on query flooding relies on a centralized directory for locating content. **False**

A. TCP uses sliding windows for flow control. **True**

B. UDP offers an optional checksum covering header and data. **True**

C. Both TCP and UDP are used for stored streaming audio/video. **True**

D. Ethernet is a point-to-point link technology. **False (Ethernet is broadcast link technology)**

E. STP (Spanning Tree Protocol) results in optimized routing. **False (Traffic concentrates towards roots)**

F. IP address aggregation leads to larger routing tables. **False( Aggregation leads to smaller routing table)**

G. BGP can be used for label distribution in MPLS. **True**

H. A layer 1 VPN provides a physical connection service. **True**

I. Multicast routing based on source-based trees is based on a rendezvous point router responsible for distributing multicast traffic. **False (Each router needs one shortest path tree for each group)**

J. Using a distributed hash table in peer-to-peer applications normally leads to an excessive amount of search traffic. **False**

A. In the initial state of the spanning tree protocol, the bridge with the highest ID assumes it is the root. **True**

B. The service offered by IP is connectionless and best-effort. **True**

C. ICMP messages are encapsulated directly in UDP messages. **False(ICMP runs directly on top of IP)**

D. Asynchronous Transfer Mode (ATM) is a connection-oriented network. **True**

E. In the Integrated Services (int-serv) model, application data for a reserved flow is carried in RSVP (Resource ReSerVation Protocol) messages. **False (RSVP is use to set up the reversed flow)**

F. Routing Information Protocol (RIP) uses a distance-vector algorithm to find the best path. **True**

G. Multicast Source Discovery Protocol (MSDP) is a protocol for sharing information between routers to transport IP Multicast packets, and it is based on RIP for forwarding of packets. **False (MSDP is not based on RIP)**

H. Voice over IP (VOIP) is an example of an application that is suitable for using peer-to-peer networks. **True**

I. Real-Time Streaming Protocol (RTSP) is used to carry real-time data such as audio and video. **False (RTSP is for control info only)**

J. The Domain Name System consists of a hierarchical set of DNS servers that serve as a directory to lookup hostnames and IP addresses. **True**

1. Network Layer: ICMP, IGMP
2. Link Layer: VLAN, PPP, STP
3. Transport Layer: DCCP, SCTP, TCP
4. Application Layer: RTSP, FTP, SMTP