1. Among the following statements on datagrams, which is incorrect? **1 / 1 point**

- (●) IPv6 packets are not datagrams
- ( ) IPv4 packets are datagrams
- ( ) Datagrams are self-contained independent entities that can carry data
- ( ) A datagram has sufficient information to be routed from a source computer to a destination computer without reliance on earlier exchanges between the source and destination computers and the transporting network

✓ **Correct**

2. Among the following statements on IPv4 packet length, which is incorrect? **1 / 1 point**

- (●) In an Ethernet network, the IPv4 packet size can be set to the maximum IPv4 packet size 65,535 octets
- ( ) In a Wi-Fi (IEEE 802.11 WLAN standard) network, 2,304 octets is the largest IPv4 packet size
- ( ) The maximum possible IPv4 packet length is 65,535 octets
- ( ) The 'Total Length' field in an IPv4 packet represents the length of the entire IPv4 packet (in units of octets)

✓ **Correct**

3. Among the following statements on the Header Checksum of IPv4 packets, which is incorrect? **1 / 1 point**

- ○ The Header Checksum field is 16 bits
- ○ The Header Checksum uses an error detection code to protect the IPv4 packet header from errors
- ◉ The Header Checksum is used to check errors only at the destination system
- ○ The Header Checksum does not check for errors that may have occurred in the payload data part of the IPv4 packet

✓ **Correct**

4. Among the following statements on the Source & Destination Addresses of IPv4 packets, which is incorrect? **1 / 1 point**

- ◉ Classful Addresses (like Class A, B, C) subnet sizes were too small, frequently resulting in lack of IP addresses to use
- ○ CIDR (Classless Inter-Domain Routing) notation is commonly used
- ○ Source and Destination IPv4 addresses are each 32 bits
- ○ CIDR addressing makes the Internet more scalable, because networks can be assigned proper subnet sizes

✓ **Correct**

5. Among the following statements on the CIDR (Classless Inter-Domain Routing) notation and addressing, which is incorrect? **1 / 1 point**

- (●) CIDR can be used for IPv4 networks only
- ( ) 123.234.100.56/24 represents the IPv4 address 123.234.100.56 and a subnet mask with 24 ones (followed by 8 zeros)
- ( ) CIDR enables IPv4 & IPv6 address block allocation to organizations based on actual network size (number of PCs, Servers) and short-term predicted needs
- ( ) CIDR uses VLSM (Variable-Length Subnet Masking)

✓ **Correct**

6. IPv6 protocols use Hexadecimal (Ox) numbering. Among the following Binary = Hexadecimal = Decimal mapping, which is incorrect? **1 / 1 point**

- ( ) 0000 = 0x0 = 0
- ( ) 0001 = 0x1 = 1
- ( ) 1000 = 0x8 = 8
- ( ) 1001 = 0x9 = 9
- ( ) 1010 = 0xa = 10
- ( ) 1011 = 0xb = 11
- (●) 1101 = 0xe = 14
- ( ) 1111 = 0xf = 15

✓ **Correct**

7. Among the following descriptions on IPv6 Jumbograms, which is incorrect? **1 / 1 point**

- (●) An IPv4 Jumbogram can be much larger than 65,535 octets
- ( ) An IPv6 Jumbogram will have its Payload Length field 16 bits all set to 0
- ( ) If IPv6 Jumbograms can be used, IPv6 Jumbograms will provide an enhanced data transfer performance
- ( ) The Jumbo Payload Option extension header needs to be used in IPv6 Jumbograms

✓ **Correct**

8. Among the following statements on UDP (User Datagram Protocol), which is incorrect? **1 / 1 point**

- ( ) UDP is a connectionless protocol, which does not establish an end-to-end connection manager to check on the received packets
- (●) UDP header includes a hop count field to check the number of hops from the source port to the destination port
- ( ) UDP provides port information of the source and destination computers for application connection
- ( ) UDP header includes a checksum field that can be used for checking errors in the UDP header and data

✓ **Correct**

9. Among the following statements, which is not used in the TCP Checksum Computation? **1 / 1 point**

- ○ Ones complement sum of all 16 bit words in the TCP header
- ○ TCP Data
- ◉ UDP header
- ○ TCP Pseudo Header

✓ **Correct**

10. TCP has functions to expedite networking services. Among the following, which is not a TCP header function for this purpose? **1 / 1 point**

- ○ TCP uses the PSH Flag, which is a push function to push the data segment to the receiving application, which enables the received data segments to be quickly used by the application
- ○ TCP uses the URG (Urgent) Flag to indicate that the Urgent Pointer field is in use
- ◉ TCP uses the TTL (Time to Live) field in the TCP header to specify the time duration the TCP session has to be completed
- ○ TCP uses the UP (Urgent Pointer) to point to the urgent data location, which enables the Receiver to know how much urgent data is coming

✓ **Correct**