

Graded Assessment – Socket API & Digital Transmissions

1. In BSD socket API, which call is usually used for transmitting data in the connectionless mode?

- `accept()`
- `connect()`
- **`sendto()`**
- None of the above

2. Which of following statement about TCP/UDP sockets is wrong?

- TCP socket is stream oriented
- UDP socket is block oriented
- **TCP is faster than UDP**
- All of the above

3. Which of following are commonly used as digital communication medium?

- Optical fiber
- **All of the above**
- Coaxial cable
- Twisted pair

4. Consider a network link that has distance of 100 meters, and signal traverses at the speed of light in cable 2.5×10^8 meters per second. The link has transmission bandwidth of 100 megabits/second (100×10^6 bits per second). The packet size is 400 bits. What is the signal propagation delay?

- **4×10^{-7} seconds**

- 4×10^{-9} seconds
- 4×10^{-6} seconds
- None of the above

5. Consider a network link that has distance of 100 meters, and signal traverses at the speed of light in cable 2.5×10^8 meters per second. The link has transmission bandwidth of 100 megabits/second (100×10^6 bits per second). The packet size is 400 bits. What is the packet transmission delay?

- None of the above
- 4×10^{-9} seconds
- **4×10^{-6} seconds**
- 4×10^{-7} seconds

6. An API allows application programs to access certain resources through a predefined interface?

- **True**
- False

7. In transport protocol, which of the following statements is true for User Datagram Protocol

- **It enables best-effort connectionless transfer of individual block of information**
- It enables connection-oriented reliable transfer of individual block of information
- It enables best-effort connectionless reliable transfer of a stream of bytes
- None of the above

8. Which of the following sentences are true for connectionless stream mode of service

- **No setup overhead and delay**

- **Destination address with each block**
- **Send/receive to/from multiple peer processes**
- **Multiple write/read between peer processes**

9. In transmission delay, in order to reduce the number of bits in a message we use data compression

- **True**
- **False**

10. Which of the following is true of data compression algorithms

- **Represent the information using fewer bits**
- **Recover information approximately**
- **Modify data headers**
- **Recover original information exactly**