Bahria University



*Lahore Campus*

*Department of Computer Sciences*

data communication & networking

ASSIGNMENT # 01

Instructor Name: Mr. Muhammad Dawood Akram

**Program:** BSCS

**Semester: 4th**

1. For each of the following four networks, discuss the consequences if a connection fails.

a. Five devices arranged in a mesh topology

b. Five devices arranged in a star topology (not counting the hub)

c. Five devices arranged in a bus topology

d. Five devices arranged in a ring topology

2. When a party makes a local telephone call to another party, is this a point-topoint or multipoint connection? Explain the answer.

3. In the TCP/IP protocol suite, what are the identical objects at the sender and the receiver sites when we think about the logical connection at the application layer?

4. A host communicates with another host using the TCP/IP protocol suite. What is the unit of data sent or received at each of the following layers?

a. application layer b. network layer c. data-link layer

5. Protocol layering can be found in many aspects of our lives such as air travelling. Imagine you make a round-trip to spend some time on vacation at a resort. You need to go through some processes at your city airport before flying. You also need to go through some processes when you arrive at the resort airport. Show the protocol layering for the round trip using some layers such as baggage checking/claiming, boarding/unboarding, takeoff/landing.