

## **CSE307::Internetworking Essentials**

### **Lab Evaluation 1**

#### **Set – A (Odd seating position)**

**Time: 2 hours**

**Max Marks: 100**

#### **Scenario: Office Network Expansion**

##### **Scenario:**

Imagine you are the IT manager for a growing company. The company currently operates in a single office with 50 employees and uses a star topology network. Each workstation is connected to a central switch, which is then connected to a router providing internet access. Due to recent growth, the company is expanding to a new floor with an additional 30 employees, and you need to extend the network to the new floor.

##### **Questions:**

1. **How would you extend the current star topology to the new floor? What considerations should you keep in mind to maintain network performance and reliability?**
2. **If the company's growth continues, what might be some limitations of using a star topology in this scenario, and how might you address these limitations?**

#### **Set – B (Even seating position)**

**Time: 2 hours**

**Max Marks: 100**

#### **Scenario: School Network expansion**

##### **Scenario:**

You are responsible for managing the network in a school where a bus topology is used to connect various classrooms and administrative offices. The school is expanding, and additional classrooms and administrative offices need to be connected to the existing network.

##### **Questions:**

1. **What are the potential issues associated with expanding a bus topology in a school network, and how might these issues impact network performance and reliability?**
2. **How would you handle the expansion of the school network to maintain performance and reliability, given the limitations of the bus topology?**