**Department of Computer Engineering**

**TE Computer-A (2021-22 Sem I)**

**Computer Networks and Security**

**CNS Practical Assignment 2 [Max Marks: 40]**

**Instructions:**

**1.** Write down step by step configuration with screen shots and upload document in pdf format on Microsoft team before due date. Also upload .pkt files (Packet tracer file) (File name Eg; Roll\_Assg2.pdf and RollNo\_Ans1.pkt, RollNo\_Ans2.pkt and so on…).

2. IP Address Series you will use in Assignment according to your Roll Numbers (192.168.Roll\_No.1 to 192.168.Roll\_No.254 Example: Roll No 20 will use 192.168.20.1 to 192.168.20.254)

**Assignment Questions:**

**Demonstrate the different types of topologies and types of transmission media by using a packet tracer tool.**

Q1. Design Star Topology using Hub and Switch and demonstrate the behavior of these topologies in real time simulation Mode. Also Compare Hub and Switch. State Advantages & Disadvantages of Star Topology. **[10 marks]**

Ans: (Sample)

1. Network Topology (Screen Shot)
2. IP Address Configuration of PCs (Configuration Steps & Screen Shots)
3. Real Mode Simulation (Screen Shots)
4. Compare Hub and Switch
5. Advantages & Disadvantages of Star Topology

Q2 Design Bus Topology using Switch and demonstrate its behavior in real time simulation Mode. State Advantages & Disadvantages of Bus Topology. **[10 marks]**

Q3 Design Ring Topology using Switch and demonstrate its behavior in real time simulation Mode. State Advantages & Disadvantages of Ring Topology. **[10 marks]**

Q4 Design Mesh Topology using Switch and demonstrate its behavior in real time simulation Mode. State Advantages & Disadvantages of Mesh Topology. **[10 marks]**

**Rubrics for Evaluation (Example)**

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| **Question No.** | **Criteria** | **Best [5]** | **Good [3.5]** | **Average [2.5]** | **Poor [0]** |
| **Q1**  **[10 marks]** | Completeness [4] | Perfect [4] | Can be better [3] | Satisfied [2] | Incorrect [0] |
| Uniqueness [3] | Perfect [3] | Can be better [2] | Satisfied [1.5] | Incorrect [0] |
| Report [3] | Perfect [3] | Can be better [2] | Satisfied [1.5] | Incorrect [0] |

Prof Nikita Singhal DR SR Dhore

(Subject Incharge) (HoD)