**Department of Computer Science & Engineering**

**COMPUTER NETWORKS LAB**

**LIST OF EXPERIMENTS**

**Size – (2\*3) Count- 1**

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| Exercise-1 | Study of Network devices in detail and connect the computers in Local Area Network. |
| Exercise-2 | Write a Program to implement the data link layer farming methods such as  i) Character stuffing ii) bit stuffing |
| Exercise-3 | Write a Program to implement data link layer farming method checksum. |
| Exercise-4 | Write a program for Hamming Code generation for error detection and correction. |
| Exercise-5 | Write a Program to implement on a data set of characters the three CRC polynomials – CRC 12, CRC 16 and CRC CCIP |
| Exercise-6 | Write a Program to implement Sliding window protocol for Goback N. |
| Exercise-7 | Write a Program to implement Sliding window protocol for Selective repeat. |
| Exercise-8 | Write a Program to implement Stop and Wait Protocol. |
| Exercise-9 | Write a program for congestion control using leaky bucket algorithm |
| Exercise-10 | Write a Program to implement Dijkstra‘s algorithm to compute the Shortest path through a graph. |
| Exercise-11 | Write a Program to implement Distance vector routing algorithm by obtaining routing table at each node (Take an example subnet graph with weights indicating delay between nodes). |
| Exercise-12 | Write a Program to implement Broadcast tree by taking subnet of hosts |
| Exercise-13 | Wireshark  i. Packet Capture Using Wire shark  ii. Starting Wire shark  iii. Viewing Captured Traffic  iv. Analysis and Statistics & Filters. |
| Exercise-14 | How to run Nmap scan |
| Exercise-15 | Operating System Detection using Nmap |
| Exercise-16 | Do the following using NS2 Simulator  i. NS2 Simulator-Introduction  ii. Simulate to Find the Number of Packets Dropped  iii. Simulate to Find the Number of Packets Dropped by TCP/UDP  iv. Simulate to Find the Number of Packets Dropped due to Congestion  v. Simulate to Compare Data Rate& Throughput |