Semester: 4th			
Paper code: AIDS256/AIML256/IOT256	**L**	**P**	**Credits**
Subject: Computer Networks and Internet Protocol Lab	**0**	**2**	**1**
Marking Scheme			

1. Teachers Continuous Evaluation: As per university examination norms from time to time
2. End term Examination: As per university examination norms from time to time

INSTRUCTIONS TO EVALUATORS: Maximum Marks: As per university norms

1. This is the practical component of the corresponding theory paper.
2. The practical list shall be notified by the teacher in the first week of the class commencement under the intimation to the office of the HOD/ Institution in which the appear is being offered from the list of practicals below.
3. Instructors can add any other additional experiments over and above the mentioned in the experiment list which they think is important.
4. At least 8 experiments must be performed by the students.

Course Objectives:

1.	To analyse various computer network protocols and components of computer network.
2.	To design and evaluate the challenges in building networks and as per the requirement of an organization.

Course Outcomes:

CO1	Design and analyse network protocols using state of art simulation tools.
CO2	Design, analyse and evaluate network services for homes, data centres, IoT, LANs and WANs.

CO/PO	PO01	PO02	PO03	PO04	PO05	PO06	PO07	PO08	PO09	PO10	PO11	PO12
CO1	2	2	2	2	3	-	-	-	-	1	-	-
CO2	2	3	3	2	2	1	1	1	2	1	1	2

LIST OF EXPERIMENTS:

1. Introduction to basic networking tools: Wireshark and Network Miner.
2. Introduction to Datadog tool for data monitoring in network.
3. Running and using services/commands like ping, trace, route, nslookup, arp, ftp etc.
4. Introduction to Network Bandwidth analyser tool for network monitoring.
5. Implementation of Packet Capture and observations using packet Sniffer.
6. Explore various aspects of HTTP Protocol.
7. Tracing DNS with Wireshark.
8. Analyzing various parameters for TCP protocol in action.
9. Create Ring, Bus, Star and Mesh topology using Cisco Packet Tracer.
10. Configure a network using distance vector routing and link state vector routing protocol.

11. Implement Dijkstra's shortest path algorithm in network routing.