

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
MCAL22	Computer Networks Lab	--	--	4	--	--	2	2
		Examination Scheme						
		Term Work		Practical		Oral		Total
		40		10		10		60

Pre-requisite Course Codes		MCA22
Course Outcomes	CO1	Implement error correction and detection techniques
	CO2	Configuring various networking protocols
	CO3	Use and demonstrate networking tools

Exp No.	Experiment details	Ref.	Marks
1	<b>Data Link Layer-Error detection &amp; correction</b> Write a program to implement VRC and LRC, CRC ,checksum and Hamming code method	1	5
2	<b>DataLink Layer Communication</b> Write a program to implement Stop and wait ARQ, sliding window protocol.	1	5
3	<b>IP addressing</b> Write a program to find out class of IP addresses, Subnet mask, first address and last address.	1	5
4	<b>Routing Techniques</b> Write a program for shortest path routing algorithm , distance vector routing algorithm	1	5
5	<b>VLAN</b> Configure VLANs on the router, Inter VLAN, Router on stick, multilayer VLAN, Spanning tree.	2	5
6	<b>Networking Protocols</b> Configuration of RIP,EIGRP,OSPF, DCHP , Access List	2	5
7	<b>Address Translation</b> Configuration of NAT, Static, Dynamic and PAT	2	5
8	<b>Application layer</b> Configure Telnet, DNS, HTTP, SMTP , FTP Servers, SNMP	2	5
<b>Total Marks</b>			<b>40</b>

#### References:

- [1] Addison-Wesley Professional, "C++ Network Programming", Addison-Wesley Professional, 2<sup>nd</sup> edition
- [2] A.Jesen, "Packet Tracer Network Simulator", PACKT publisher, 3<sup>rd</sup> edition.