

SCHEME OF COURSE WORK

CourseDetails:

CourseTitle	:ComputerNetworksLab		
CourseCode	:15CT1131	L T P C	: 0 0 3 2
Program:	: B.Tech.		
Specialization:	: Information Technology		
Semester	: VI		
Prerequisites	:-----		
Coursestowhich itis a prerequisite	: UNIX network programming Lab and project work		

CourseOutcomes(COs):

Attheendofthecoursethestudentwillbeableto

- CO 1:Design aLocalAreaNetwork.
- CO 2:ImplementerrorControlandflowcontrolmethods.
- CO 3: UnderstandtheNetworklayerdesignissues.
- CO 4:Implementdataencryptionanddecryptiontechniques
- CO 5:Usenetworksimulatorandpackettracertoolsfordesigning networks

CourseOutcomeVersusProgramOutcomes:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO-1	3				2							3		2	
CO-2		3	3		2							2		2	
CO-3	2			2								3		2	

CO-4		2		2	3							2		2	3
CO-5		2	3									2		2	

S-Stronglycorrelated,M-Moderatelycorrelated,Blank-Nocorrelation

AssessmentMethods:Assignment / Quiz/ Seminar/CaseStudy / Mid-Test /EndExam

Teaching-Learning and Evaluation

<u>Week</u>	<u>Topic/Content</u>	Course outcomes	Sample questions for Viva	Teaching Learning Strategy	Assessment Methods
1	To connect the Computers as a local Area Networks	CO1	1. What is LAN? 2. How to identify the	Lecture PPT for program	

			given network is LAN? 3. What are the advantages of LAN?	writing	Day-to-Day Analysis Lab-Internal-I (Week 8)
2	Implement CRC code with different polynomial for error detection	CO2	1. What is the full form of the CRC? 2. What are the other standard polynomials? 3. List out the different protocols which are used CRC for error detection.	Lecture PPT for program writing	
3	Implement Hamming code for error correction	CO2		Lecture PPT for program writing	
4	Implement Distance Vector Routing algorithm to find neighbour node distances	CO3	1. What is the other name of the DVR? 2. What is the difference between Link state and DVR algorithm?	Lecture PPT for program writing	

5	Implement Address Resolution Protocol (ARP) to convert an IP address into a physical address (DLCA address), such as an Ethernet address.	CO3	<ol style="list-style-type: none"> 1. What is the purpose of IP address? 2. What is the difference between IP, MAC, logical address? 	Lecture PPT for program writing
6	Implement Reverse Address Resolution Protocol (RARP) to MAC address into IP address	CO3	<ol style="list-style-type: none"> 1. What is the purpose of IP address? 2. What is the difference between IP, MAC, logical address? 	Lecture PPT for program writing
7	Lab Internal-I			

8	Using RSA algorithm Encrypt a text data and Decrypt the same.	CO4	<ol style="list-style-type: none"> 1. Using RSA algorithm Encrypt text data and Decrypt the same. 2. How to select the Prime numbers for calculation of encrypt and decrypt keys? 	Lecture PPT for program writing
9	To learn and install Network Simulator version 2 (NS-2)	CO5	1. What are the supported operating systems to install the NS-2?	Lecture PPT for installation procedure
10	To Design sample topology using Network Simulator version 2 (NS-2)	CO5	<ol style="list-style-type: none"> 1. What is the Syntax of the TCL script? 2. Explain all parameters in the syntax of TCL script 	Lecture PPT for program writing
11	To implement Transmission Control Protocol (TCP) and User Datagram Protocol (UDP) between different pairs of systems using Network Simulator version 2 (NS-2)	CO5	<ol style="list-style-type: none"> 1. What is the difference between TCP and UDP? 2. How to set the UDP and TCP protocols in the TCL script? 	Lecture PPT for program writing

12	ToDesign anetworkusing loopconstraintwithNetworkSimulatorversion2(NS-2)	CO5	1. Whatarethecontrollo opsinNS_-2simulator? 2. writea syntax oftheforloopinNS-2?	Lecture PPTforpr ogramwr iting	Day-to- DayAnalysis LabInternal- II(Week14)
13	ToDesign anetworkusingPacketTracer	CO5		Lecture PPTforpr ogramwr iting	
14	Lab Internal-II				
15	ENDEXAM				