



REVISED ACADEMIC CALENDAR 2022-23

B.Tech III Year - I & II Semester

(for 2020 admitted batch)

I Semester

I Spell of Instructions:	19.09.2022 to 12.11.2022	(45 Days)
I Mid-term Examinations: (1 st Objective + 1 st descriptive)	14.11.2022 to 16.11.2022	(03 Days)
II Spell of Instructions:	17.11.2022 to 07.01.2023	(45 Days)
II Mid-term Examinations: (2 nd Objective + 2 nd descriptive)	09.01.2023 to 11.01.2023	(03 Days)
End laboratory Examinations:	12.01.2023 to 19.01.2023	(05 Days)
End Theory Examinations:	20.01.2023 to 03.02.2023	(12 Days)
Commencement of Class Work for III Year B.Tech II semester	06.02.2023 (Monday)	
Declaration of results for III-I	28.02.2023	

II Semester

I Spell of Instructions:	06.02.2023 to 03.04.2023	(45 Days)
I Mid-term Examinations: (1 st Objective + 1 st descriptive)	04.04.2023 to 06.04.2023	(03 Days)
II Spell of Instructions:	08.04.2023 to 29.04.2022	(15 Days)
Summer Vacation & Industrial Internship	30.04.2023 to 25.06.2023	(08 weeks)
Industry Internship (Mandatory) including summer vacation		
II Spell of Instructions (Continued):	26.06.2023 to 31.07.2023	(30 Days)
II Mid-term Examinations: (2 nd Objective + 2 nd descriptive)	01.08.2023 to 03.08.2023	(03 Days)
End laboratory Examinations:	04.08.2023 to 09.08.2023	(05 Days)
End Theory Examinations:	10.08.2023 to 24.08.2023	(12 Days)
Commencement of Class Work for IV Year B.Tech I semester	28.08.2023 (Monday)	
Declaration of results for III-II	21.09.2023	

Note:

- The Mid-term Examinations should be conducted and completed as per the schedule given.
- For slippage of working days due to any unavoidable reasons, compensation can be made by conducting class work on second Saturdays, Sundays and other holidays, except on National Holidays and important festivals.

Digitally signed by KESHAVA REDDY
EDDULA
Date: Tue Dec 13 16:55:03 IST 2022

DIRECTOR OF EVALUATION

Notified on 10.08.2022

Revised on 13.12.2022



SREE VENKATESWARA COLLEGE OF ENGINEERING

NAAC 'A' Grade Accredited Institution,
An ISO 9001:: 2015 Certified Institution
(Approved by AICTE, New Delhi and Affiliated to JNTU, Anantapur)
Northrajupalem (Vi), Kodavaluru(M) , S.P.S.R Nellore (Dt)-524316



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING LECTURE SCHEDULE (AY 2022-23)

Course: III B.TECH-I SEM

Staff: V.KUSUMA PRIYA

Subject: CN (CSE-A)

Total Hours	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Total
	18	16	12	10	14	70

WEEK	DATES	PERIODS	TOPICS	Mode of Delivery
1	19-09-2022 To 24-09-2022	Unit – 1: Computer Networks and the Internet		
		1	Introduction	Chalk& Talk
		1	What is the Internet?	Chalk& Talk
		1	What is the Internet?	Chalk& Talk
		1	The Network Edge	Chalk& Talk
		1	The Network Edge	Chalk& Talk
2	26-09-2022 To 01-10-2022	1	The Network Edge	Chalk& Talk
		1	The Network Core	Chalk& Talk
		1	The Network Core	Chalk& Talk
		1	Delay, Loss, and Throughput in Packet-Switched Networks	Chalk& Talk
3	06-10-2022 To 08-10-2022	1	Delay, Loss, and Throughput in Packet-Switched Networks	Chalk& Talk
		1	Protocol Layers	Chalk& Talk
4	10-10-2022 To 15-10-2022	1	Reference Models	Chalk& Talk
		1	Reference Models	Chalk& Talk
		1	Reference Models	Chalk& Talk
		1	Example Networks	Chalk& Talk
		1	Guided Transmission Media	Chalk& Talk
5	17-10-2022 To 22-10-2022	1	Guided Transmission Media, Wireless Transmission	Chalk& Talk
		1	Wireless Transmission	Chalk& Talk
		Unit – 2: The Datalink Layer, Access Networks, and LANs		
		1	Introduction to the Link Layer	Chalk& Talk
		1	Data Link Layer Design Issues	Chalk& Talk
		1	Data Link Layer Design Issues	Chalk& Talk
6	25-10-2022 To 29-10-2022	1	Error Detection and Correction	Chalk& Talk
		1	Error-Detection and -Correction Techniques	Chalk& Talk
		1	Error-Detection and -Correction Techniques	Chalk& Talk
		1	Elementary Data Link Protocols	Chalk& Talk
7	31-10-2022 To 05-11-2022	1	Sliding Window Protocols	Chalk& Talk
		1	Sliding Window Protocols	Chalk& Talk
		1	Multiple Access Links and Protocols	Chalk& Talk
		1	Multiple Access Links and Protocols	Chalk& Talk
		1	Multiple Access Links and Protocols	Chalk& Talk
		1	Switched Local Area Networks	Chalk& Talk
		1	Link Virtualization: A Network as a Link Layer	Chalk& Talk

8	07-11-2022 To 12-11-2022	1	Data Center Networking	Chalk& Talk	
		1	Retrospective: A Day in the Life of a Web Page Request	Chalk& Talk	
		Unit – 3 : The Network Layer			
		1	Introduction	Chalk& Talk	
		1	Routing Algorithms	Chalk& Talk	
		1	Routing Algorithms	Chalk& Talk	
MID-I EXAMINATION(12-11-2022 to 16-11-2022)					
9	17-11-2022 To 19-11-2022	1	Routing Algorithms	Chalk& Talk	
		1	Internetworking	PPT	
		1	Internetworking	PPT	
10	21-11-2022 To 26-11-2022	1	Internetworking	PPT	
		1	The Network Layer in The Internet	PPT	
		1	The Network Layer in The Internet	PPT	
		1	The Network Layer in The Internet	Chalk& Talk	
		1	The Network Layer in The Internet	Chalk& Talk	
11	28-11-2022 To 03-12-2022	Unit – 4 : The Transport Layer			
		1	Connectionless Transport: UDP	PPT	
		1	Connectionless Transport: UDP	PPT	
		1	The Internet Transport Protocols: TCP	Chalk& Talk	
		1	The Internet Transport Protocols: TCP	Chalk& Talk	
		1	The Internet Transport Protocols: TCP	Chalk& Talk	
12	05-12-2022 To 10-12-2022	1	The Internet Transport Protocols: TCP	Chalk& Talk	
		1	The Internet Transport Protocols: TCP	Chalk& Talk	
		1	The Internet Transport Protocols: TCP	Chalk& Talk	
		1	Congestion Control	Chalk& Talk	
		1	Congestion Control	Chalk& Talk	
13	12-12-2022 To 17-12-2022	Unit – 5 : Principles of Network Applications			
		1	Principles of Network Applications	Chalk& Talk	
		1	Principles of Network Applications	Chalk& Talk	
		1	The Web and HTTP	Chalk& Talk	
14	19-12-2022 To 24-12-2022	1	The Web and HTTP	Chalk& Talk	
		1	Electronic Mail in the Internet	Chalk& Talk	
		1	Electronic Mail in the Internet	Chalk& Talk	
		1	DNS—The Internet's Directory Service	Chalk& Talk	
		1	DNS—The Internet's Directory Service	Chalk& Talk	
15	26-12-2022 To 31-12-2022	1	Peer-to-Peer Applications	Chalk& Talk	
		1	Peer-to-Peer Applications	Chalk& Talk	
		1	Video Streaming	Chalk& Talk	
		1	Video Streaming	Chalk& Talk	
		1	Content Distribution Networks	Chalk& Talk	

		1	Content Distribution Networks	Chalk& Talk
16	02-01-2023 To 07-01-2023	1	Revision	
		1	Revision	
		1	Revision	
		1	Exam	
		1	Exam	
MID-II EXAMINATION(09-01-2023 to 11-01-2023)				


STAFF


HOD

CourseDetails

Class: III-Year, B.Tech
Course Title: Computer Networks
Batch:2020-2024
Regulation:R-20

Semester: II
Course Code: 20A05501T
Program/Dept.: CSE
Faculty: V. Kusuma Priya

Academic Year: 2022-23
Credits: 03
Section: CSE-A,B&C

ICT -DELIVERY SCHEDULE

Sno	Session No:	Topic/Sub-Topics	Duration in Minutes	Mode of Delivery/Delivery Strategy/(Activity) / Instructions	ICT-Source/URL/Link
UNIT - I					
1.	1	Switched Networks	15MIN	PPT	https://www.slideshare.net/shivanigodhal/computer-network-switching
2	2	The Network Core	15MIN	NPTEL	https://onlinecourses.nptel.ac.in/noc22_cs19/preview
3	3	Data Link Layer	15MIN	PPT	https://www.slideshare.net/MukeshChinta/data-link-layer-44070051
4	4	Link Virtualization	15MIN	NPTEL	https://onlinecourses.nptel.ac.in/noc22_cs19/preview
5	5	Routing Algorithms	15MIN	NPTEL	https://onlinecourses.nptel.ac.in/noc22_cs19/preview
6	6	The Network Layer in The Internet	15MIN	PPT	https://www.slideshare.net/ShashikantAthawale/network-layer-56731352
7	7	Connectionless Transport	15MIN	PPT	https://www.slideshare.net/ymghorpade/connection-less-oriented

8	8	The Internet Protocols	15MIN	NPTEL	https://onlinecourses.nptel.ac.in/noc22_cs19/preview
9	9	The Electronic Mail in the Internet	15MIN	PPT	https://www.slideshare.net/AbidFakhrealam/electronic-mail-75986945
10	10	DNS- The Internet's Directory Service	15MIN	PPT	https://www.powershow.com/view/37368-YTg2Y/Domain_Name_System_DNS_powerpoint_ppt_presentation

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Northrajupalem (V), Kodavallur(M), S.P.S.R Nellore (Dt)-524316



CSE-A TIME TABLE III B.TECH I SEMAY:2022-2023

		W.E.F:19/09/2022				LH - 29					
		3		4		5		6		7	
MON	9.30 TO 10.20	10.20 TO 11.10		11.30 TO 12.20		12.20 TO 1.10		2.00 TO 2.50		2.50 TO 3.40	
	FLAT	←		CN LAB →		CN LAB →		CN		MATLAB	
TUE	CN	MATLAB		AI		FLAT		T&P(Apt)		SPM	
WED	← AWAD LAB →	→		SPM		AI		Seminar		MATLAB	
THUR	SPM	←		AI LAB →		→		FLAT		CN	
FRI	AI	AWAD		SPM		FLAT		Assoc. Activities		MATLAB	
SAT	TBS	CN		AI		FLAT		AI(Tut)		Sports	
11.10 TO 11.30 TEA BREAK											
01:10 TO 2.00 LUNCH BREAK											

SL NO	SUBJECT CODE	NAME OF THE SUBJECT/LAB	NAME OF THE FACULTY
1	20A05501T	Computer Networks	Mrs V. Kusuma Priya
2	20A05502T	Artificial Intelligence	Mrs. M. Chitra Rupa
3	20A05503	Formal Languages and Automata Theory	Mr. P. Mohan
4	20A05504a	Software Project Management	Mr. G. Vidya Sagar
5	20A04507	MATLAB Programming for Engineers	Mrs. N. Naveena
6	20A05501P	Computer Networks Lab	Mrs V. Kusuma Priya/Ramesh Nosina/Mr. V. Maresh Kumar
7	20A05502P	Artificial Intelligence Lab	Mrs. M. Chitra Rupa/Mr. N. Harish/Mrs. V. S. V. Harika
8	20A05506	Skill oriented course-III Advanced Web Application Development	Mr. P. Nagendra Babu/ Ramesh Nosina
9	20A05507	Evaluation of Community Service Project	Mr. G. Vidya Sagar/ Dr. K Venkata Nagendra

CLASS INCHARGE: G. VIDYA SAGAR

**LIB- Library **TBS- Topic Beyond Syllabus **T&P- Training & Placement

[Signature]
HOD

[Signature]
TIMETABLE COORDINATOR

[Signature]
P. Kumal Babu
PRINCIPAL
Sree Venkateswara College of Engineering
Northrajupalem, Kodavallur (V&M)
Nellore (Dist.) - 524 316.



Individual Time Table

CSE-A

TIME TABLE III B.TECH I SEM AY: 2022-2023

W.E.F:19/09/2022

LH - 29

Staff: V. KusumaPriya

	1	2	3		4		5		6	7
MON	9.30 TO 10.20 FLAT	10.20 TO 11.10 ←	11.30 TO 12.20 CN LAB →		12.20 TO 1.10 →		2.00 TO 2.50 CN		2.50 TO 3.40 MATLAB	3.40 TO 4.30 SPM
TUE	CN	MATLAB	AI		FLAT		T&P(Apt)		T&P(CS)	SPM(Tut)
WED	← AWAD LAB →	→	SPM		AI		Seminar		MATLAB	CN(Tut)
THUR	SPM	←	AI LAB →		→		FLAT		CN	LIB
FRI	AI	AWAD	SPM		FLAT		Assoc. Activities		MATLAB	
SAT	TBS	CN	AI		FLAT		AI(Tut)		MATLAB (Tut)	Sports
11.10 TO 11.30 TEA BREAK										
01:10 TO 2.00 LUNCH BREAK										

Signature of the Staff

Signature of the HOD



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Course: III B.Tech-I Sem(2022-23)

Staff: V. Kusuma Priya

Subject: CN

Question Bank

UNIT-1 (Introduction)

Two Marks Questions

1. What is a network
2. What is internet
3. What is network software and hardware?
4. What is transmission rate
5. What application programming interface.
6. What is protocol
7. Define network edge and core
8. What is HFC
9. What is forwarding table
10. Difference between LAN, MAN, WAN
11. What are the advantages of protocol layering?
12. Difference between OSI and TCP/IP?
13. Brief the history of internet

Ten Marks Questions

1. Explain different types of networks?
2. Explain about home access methods
3. Draw OSI reference model and explain the functionalities of each layer in detail?
4. Draw TCP/IP reference model and explain layers?
5. Draw & write notes on following transmission media?
 - Twisted pair
 - coaxial cable
 - fiber optics
6. Explain about unguided media?
7. Write about
 - circuit switching
 - packet switching
8. Delay, loss, and throughput in packet switching.

UNIT-2 (Data Link Layer)

Two Marks Questions

1. What are the responsibilities of data link layer?
2. What is ARP?
3. What is framing?
4. Define Error detection and correction. List out the available detection methods.
5. What is the use of two-dimensional parity in error detection?
6. What are the responsibilities of data link layer?
7. What is redundancy?
8. Difference between MAC address and IP address?

9. What is CSMA? List the protocols used with CSMA
10. Define the term carrier sense in CSMA/CD?
11. Difference between MAC and IP addresses.
12. What is Top of Rack (TOR)
13. Define ARQ.
14. What is sliding window protocol?
15. Difference between Go-back N ARQ and selective repeat ARQ.

Ten Marks Questions

1. Explain about ARP protocol (link layer addressing)?
2. Explain about framing
3. What is the remainder obtained by dividing x^7+x^5+1 by the generator x^3+1 ? using CRC
4. Explain about parity check
5. Explain checksum error detection method
6. Explain Elementary Data Link Protocols, Sliding Window Protocols
7. Explain about pure ALOHA versus slotted ALOHA.
8. Explain the Random-Access protocol.
9. What are the techniques in channelization?
10. What are the techniques in controlled access?
11. Explain briefly about Ethernet
12. Explain virtual local area networks (VLANs).
13. Explain about Data Center Networking

UNIT-3 (Network Layer)

Two Marks Questions

1. What is Forward table
2. Define tunneling
3. What is packet fragmentation
4. What is sub netting and super netting?
5. What are the responsibilities of Network Layer?
6. Difference between IPV4 and IPV6 protocol
7. What is ICMP and IGMP?
8. What is routing?
9. What are the salient features of IPv6?
10. What is mask
11. What is netid and hostid

Ten Marks Questions

1. What are the design issues and services provided by Network layer explain?
2. Explain Tunneling?
3. Explain IPV4 packet header.
4. Explain IPV6 packet header.
5. Explain the need for classification of IP Addressing?
6. Write a short note on Classless Inter Domain Routing(classless).
7. Explain Internet control message protocol.
8. Explain about OSPF, and BGP
9. What is Distance vector in distance vector routing algorithm? Explain with example
10. What is Link State routing? Explain with example
11. Explain about Broadcast and Multicast Routing

UNIT-4 (Transport Layer)

Two Marks Questions

1. Difference between connection oriented and connection less services?
2. Define UDP and TCP
3. What are the advantages of using UDP over TCP?
4. List the flag used in TCP header
5. What are the socket primitives for TCP
6. Define port? List some port numbers?
7. Write about congestion control?
8. What is the segment?
9. What are reasons that many applications are better suited for UDP

Ten Marks Questions

1. Write short notes on UDP with Header diagram?
2. Explain UDP checksum
3. Draw TCP header and explain various fields in it?
4. Explain how 3-way handshake protocol used for establishment and release of connection in different scenarios with diagrams?
5. Explain TCP connection management with Diagram?
6. Explain TCP congestion control policies?
7. Write a short note on TCP Sliding window
8. Explain Principles of Congestion Control

UNIT-5 (Application Layer)

Two Marks Questions

1. Write about application layer services?
2. Write about client server programming?
3. Write a note on e-mail.
4. Define HTTP? What is a persistent and non-persistent connection?
5. What is URL s and give some examples?
6. What is SMTP?
7. What is the web browser and web server?
8. What is DNS?
9. Write down the three types of WWW documents.
10. What is web page
11. What is RTT.
12. What is email address
13. What are Generic Domains?
14. What is domain and zone

Ten Marks Questions

1. Explain client-server or the peer-to-peer (P2P) architecture (Network Application Architecture)
2. Explain Processes communication
3. Explain about DNS & DNS name space with diagram?
4. Explain architecture and services of electronic mail (e-mail)?
5. Explain WWW and HTTP?
6. Write short notes on FTP?
7. Write about Web Caching (Proxy Servers)
8. Peer-to-Peer Applications: Video Streaming and Content Distribution Networks.

COMPUTER NETWORKS

(Common to CSE and IT)

Max. Marks: 70

Time: 3 hours

PART – A

(Compulsory Question)

1 Answer the following: (10 X 02 = 20 Marks)

- (a) Define a computer Network. What are the differences between a computer network and a distributed system?
- (b) What are the devices that can be used as end devices for a computer network?
- (c) What is the need for medium access control layer?
- (d) How parity method can be used for error detection.
- (e) What are the addresses that are used in a computer network?
- (f) What are the control messages that are supported by ICMP?
- (g) Why transport layer is called as end to end layer.
- (h) What are the fields that are present in the UDP header?
- (i) What is the typical hardware configuration of a server machine?
- (j) What is POP in an email system?

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

- 2 (a) Why layered approach is used for the design of computer networks.
- (b) What are the protocols of the TCP/IP protocol suite? Mention the purpose of each of them.
- (c) What are the advantages and disadvantages of standards?

OR

- 3 (a) Compare circuit switching and packet switching.
- (b) Compare copper and Fiber as transmission media.
- (c) What are the problems with wireless transmission?

UNIT – II

- 4 (a) How the virtual LANs work.
- (b) Write the algorithm for computing the check sum using the CRC method.
- (c) What are the techniques for channelization?

OR

- 5 (a) What are the differences between error detection and error correction?
- (b) Given the generator polynomial $x^3 + 1$ and bit polynomial $x^7 + x^5 + 1$, compute the checksum using the CRC method.

UNIT – III

- 6 (a) What is Distance vector in distance vector routing algorithm?
- (b) How routes are determined by exchange of distance vectors. What is the main problem with distance vector routing algorithm? What are the solutions for it? Illustrate with an example.

OR

- 7 (a) What are the problems with internetworking?
- (b) What is the format of packets exchanged in link state routing algorithm?
- (c) What are the parameters for measuring quality of service?

Contd. in page 2

UNIT - IV

- 8 (a) What is the format of the header of TCP segment? Explain the fields.
(b) How flow control is achieved in TCP?

OR

- 9 (a) What are the open loop solutions for congestion control?
(b) What are the closed loop solutions for congestion control?

UNIT - V

- 10 (a) What are the functions of user agent, message transfer agent and message access agent in e-mail system?
(b) How TELNET works?

OR

- 11 (a) Explain any 10 tags of HTML.
(b) Why DNS is implemented as distributed system?

POP

Code: 15A05502

B.Tech III Year I Semester (R15) Supplementary Examinations June/July 2019
COMPUTER NETWORKS
(Common to CSE & IT)

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- Define computer network.
 - What is packet switching?
 - Specify network layer design issues.
 - Define framing in DLL.
 - What is the purpose of adding checksum to a frame?
 - Define load shedding.
 - List the performance problem in computer networks.
 - Draw the UDP header.
 - What is URL? What is its purpose?
 - What is purpose of TELNET?

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

- 2 Write about OSI/ISO reference model by specifying each layer functionalities.
- OR**
- 3 Discuss about the guided media in physical layer.

UNIT – II

- 4 (a) State and explain about various design issues of data link layer.
(b) How PPP differs from HDLC? Explain.

OR

- 5 Illustrate about multiple access protocols.

UNIT – III

- 6 Explain link state routing algorithm.

OR

- 7 Explain OSPF interior gate way routing protocol in detail.

UNIT – IV

- 8 Describe TCP internet transport protocol by specifying TCP header format.

OR

- 9 Explain how TCP connection is established.

UNIT – V

- 10 Write about:
- Domain Name System.
 - SNMP.

OR

- 11 (a) Give the architectural over view of world wide web.
(b) Write short notes on FTP.



SREE VENKATESWARA COLLEGE OF ENGINEERING :: NELLORE
Department of CSE

COURSE END SURVEY

Course Name:	Computer Networks	
Course Code:	20A05501T	C311
Session of Course:	2022 -2023	
Year/Semester	III/I	
Credits:	3	
Batch:	2020-2024	

COURSE END SURVEY(INDIRECT SURVEY)							
CO	CO DESCRIPTION	Excellent	Good	Fair	Total No. of Students	Total-weighted	LEVEL OF ATTAINMENT
		3	2	1			
CO1	Identify the software and hardware components and functionality of each layer of a computer network.	128	28	10	166	450	2.71
CO2	Interpret medium access protocols.	135	22	9	166	458	2.76
CO3	Analyse critically the existing routing protocols.	131	25	10	166	453	2.73
CO4	Apply the appropriate transport protocol based on the application requirements.	136	26	4	166	464	2.80
CO5	Illustrate Principles of Network Applications.	134	27	5	166	461	2.78

Signature of the Faculty


Signature of the HOD

Head of the Department
Computer Science and Engineering
SREE VENKATESWARA COLLEGE OF ENGINEERING
KODAVALURU, SPSR Nellore Dist.



SREE VENKATESWARA COLLEGE OF ENGINEERING :: NELLORE

Department of CSE

CO ATTAINMENT

Course Name:	Computer Networks
Course Code:	20-A05501T C311
Session of Course:	2022 -2023
Year/Semester	III/1
Credits:	3
Batch:	2020-2024

CO-PO MAPPING QUESTION NO.S REFERENCE

CO NUMBER	MID1								MID 2								CO3,CO4,CO5	CO3,CO4,CO5	Assignment 2	University Exam
	CO1	CO1	CO2	CO2	CO1	CO2	CO1,CO2	CO1,CO2	CO3	CO3	CO4	CO4	CO5	CO5						
MID Questions	PART1	PART2	PART1	PART2	PART1	PART2	M1 MCQs	Assignment 1	PART1	PART2	PART1	PART2	PART1	PART2	M2 MCQs					
CO-PO MAPPING QUESTION NO.S	M1Q1	M1Q2	M1Q3	M1Q4	M1Q5	M1Q6			M2Q1	M2Q2	M2Q3	M2Q4	M2Q5	M2Q6						
Attainment level	2	3	3	1	3	3	3	3	3	3	3	3	3	1	3					

CO MAPPING

NOTE: No of questions covered in mid 1 and mid 2

COURSE OUTCOMES		MID-1 (UNIT 1 & 2)	MID-2 (UNIT 3,4 & 5)
CO1	Identify the software and hardware components and functionality of each layer of a computer network.	M1Q1,M1Q2, M1Q5,M1-MCQ, ASGNMNT1	
CO2	Interpret medium access protocols.	M1Q3,M1Q4, M1Q6,M1-MCQ, ASGNMNT1	
CO3	Analyse critically the existing routing protocols.		M2Q1, M2Q2, M2-MCQ, ASGNMNT2
CO4	Apply the appropriate transport protocol based on the application requirements.		M2Q3, M2Q4, M2-MCQ, ASGNMNT2
CO5	Illustrate Principles of Network Applications.		M2Q5, M2Q6, M2-MCQ, ASGNMNT2

COs ATTAINMENT

CO	CO Attainment Values						External Attainment level	Direct Attainment levels	Indirect (CES) Attainment Level	CO Attained	% CO Attained
	Question wise										
CO1	2	3	3	3	3		3.00	2.94	2.71	2.87	95.71
CO2	3	1	3	3	3		3.00	2.88	2.76	2.84	94.79
CO3	3	3	3	3			3.00	3.00	2.73	2.92	97.29
CO4	3	3	3	3			3.00	3.00	2.80	2.94	97.95
CO5	3	1	3	3			3.00	2.85	2.78	2.83	94.27
CO ATTAINMENT ANALYSIS:							Target Level		2.10		

Remarks: Target level reached for all CO's.

Action Suggested: Target achieved. Hence, tutorial classes are to be conducted on routing protocols, transport protocols.

Signature of the Faculty

Signature of the HOD

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SREE VENKATESWARA COLLEGE OF ENGINEERING :: NELLORE

Department of CSE

PO ATTAINMENT

Course Name:	Computer Networks	
Course Code:	20A05501T	C311
Session of Course:	2022 -2023	
Year/Semester	III/I	
Credits:	3	
Batch:	2020-2024	

PO ATTAINMENT

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	CO Attained Levels
CO1	3	1	1					1				3	2	3	2.87
CO2	3	3	2					1				2	2	2	2.84
CO3	3	3	2	2	3			1				2	2	2	2.92
CO4	3	2	1	2	3			1				3	2	2	2.94
CO5	3	3	1					1				2	2	2	2.83
TOTAL	5	5	5	2	2			5				5	5	5	

Sum of CO*PO	14.40	11.51	6.72	3.90	5.86			4.80				11.54	9.60	10.56	
CO-PO LEVEL	2.89	2.31	1.35	1.96	2.93			0.97				2.31	1.93	2.12	

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