J.B. INSTITUTE OF ENGINEERING & TECHNOLOGY

(AUTONOMOUS)

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR **2015-2016**

M.RAVI

ASSISTANT PROFESSOR

SUB: Computer Networks

	COURSE PLAN	2014-15
		Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M.Ravi
Designation: Asst. Professor
Department:: IT

COURSE DETAILS

Name Of The Programme:: Batch:: 2012-2016

Year III Semester I
Department:: IT
Title of The Subject CN Subject Code
No of Students 43

	COURSE PLAN	2014-15
		Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M. Ravi
Designation: Asst. Professor
Department:: IT

1. TARGET

a) Percentage Pass: 100

b) Percentage I class: 95

2. COURSE PLAN

(Please write how you intend to cover the contents: i.e., coverage of Units by lectures, guest lectures, design exercises, solving numerical problems, demonstration of models, model preparation, or by assignments, etc.)

3. METHOD OF EVALUATION

3.1. ☐ Continuous Assessment Examinations (CAE 1, CAE 2)

3.2. ☐ Assignments / Seminars

3.3. ☐ Mini Projects

3.4. ☐ Quiz

3.5. ☐ Term End Examination

3.6. ☐ Others

4. List out any new topic(s) or any innovation you would like to introduce in teaching the subject in this Semester.

Signature of HOD
Date:

Signature of Faculty
Date:

	GUIDELINES TO STUDY THE SUBJECT	2014-15
		Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M. Ravi

Designation: Asst. Professor

Department:: IT

Guidelines for Preparing the Course:

Course Description:
This course is to provide students with an overview of the concepts and fundamentals of data communication and computer networks. Topics to be covered include: data communication concepts and techniques in a layered network architecture, communications switching and routing, types of communication, network congestion, network topologies, network configuration and management, network model components, layered network models (OSI reference model, TCP/IP networking architecture) and their protocols, various types of networks (LAN, MAN, WAN and Wireless networks) and their protocols.

Course Objectives:
At the end of the course, the students will be able to: 1. Build an understanding of the fundamental concepts of computer networking. 2. Familiarize the student with the basic taxonomy and terminology of the computer networking area. 3. Introduce the student to advanced networking concepts, preparing the student for entry Advanced courses in computer networking. 4. Allow the student to gain expertise in some specific areas of networking such as the design and maintenance of individual networks.

Learning Outcomes:
After completing this course the student must demonstrate the knowledge and ability to: 1. Independently understand basic computer network technology. 2. Understand and explain Data Communications System and its components. 3. Identify the different types of network topologies and protocols. 4. Enumerate the layers of the OSI model and TCP/IP. Explain the function(s) of each layer. 5. Identify the different types of network devices and their functions within a network 6. Understand and building the skills of sub netting and routing mechanisms. 7. Familiarity with the basic protocols of computer networks, and how they can be used to assist in network design and implementation.

	COURSE OBJECTIVES	2014-15
		Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M. Ravi
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On completion of this Subject / Course the student shall be able to:

S.No.	Objectives	Outcomes
1.	Build an understanding of the fundamental concepts of computer networking	2
2.	Familiarize the student with the basic taxonomy and terminology of the computer networking area.	4
3.	Introduce the student to advanced networking concepts, preparing the student for entry Advanced courses in computer networking	6
4.	Allow the student to gain expertise in some specific areas of networking such as the design and maintenance of individual networks.	6

Signature of Faculty
Date:

Note: For each of the OBJECTIVE indicate the appropriate OUTCOMES to be achieved.
Kindly refer Page 16, to know the illustrative verbs that can be used to state the objectives.

	COURSE OUTCOMES	2014-15
		Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M. Ravi
Designation: Asst. Professor
Department:: IT

The expected outcomes of the Course / Subject are:CN

S.No.	General Categories of Outcomes	Specific Outcomes of the Course
A.	An ability to apply knowledge of mathematics, science, and engineering	
B.	An ability to design and conduct experiments, as well as to analyze and interpret data	
C.	An ability to design a system, component, or process to meet desired needs within realistic Constraints such as economic, environmental, social, political, ethical, health and safety, Manufacturability and sustainability	
D.	An ability to function on multi-disciplinary teams	
E.	An ability to identify, formulate, and solve engineering problems	
F.	An understanding of professional and ethical responsibility	
G.	An ability to communicate effectively	
H.	The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context	
I.	A recognition of the need for, and an ability to engage in life-long learning	
J.	A knowledge of contemporary issues	
K.	An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.	

Objectives – Outcome Relationship Matrix (Indicate the relationships by ☒ mark).

Outcomes / Objectives	A	B	C	D	E	F	G	H	I	J	K
1.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
4.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
6.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
7.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
8.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
9.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
10.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

	COURSE SCHEDULE	2014-15
		Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M. Ravi
Designation: Asst. Professor
Department:: IT
The Schedule for the whole Course / Subject is:: CN

S. No.	Description	Duration (Date)		Total No. of Periods
		From	To	
1	Introduction to networks, internet, Protocols and standards, the OSI model, Layers in OSI model, TCP/IP suite, Addressing, Analog and digital signals.			**10**
2	**Physical Layer:** Digital transmission, multiplexing, transmission media, circuit switched networks, Datagram networks, Virtual circuit networks, switch and Telephone network.			**10**
3	**Data link Layer:** Introduction, Block coding, cyclic codes, checksum, framing, flow and error control, Noiseless channels, noisy channels, HDLC, point to point protocols.			**10**
4	**Medium Access sub Layer:** Random access, controlled access, channelization, IEEE standards, Ethernet, Fast Ethernet, Giga-Bit Ethernet, Wireless LANs.			**09**
5	Connecting LANs, backbone networks and virtual LANs, Wireless WANs, SONET, frame relay and ATM.			**10**
6.	**Network Layer:** Logical addressing, internetworking, tunneling, address mapping, ICMP, IGMP, forwarding, uni-cast routing protocols, multicast routing protocols.			**07**

7	**Transport Layer:** Process to process delivery, UDP and TCP protocols, SCTP, data traffic, congestion, congestion control, QoS, integrated services, differentiated services, QoS in switched networks.			**07**
8	**Application Layer:** Domain name space, DNS n internet, electronic mail, FTP, WWW, HTTP, SNMP, multi-media, network security.			**04**

Hours / Periods 67

	SCHEDULE OF INSTRUCTIONS	2014-15
	UNIT - I	Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M. Ravi
Designation: Asst. Professor
Department:: IT
The Schedule for the whole Course / Subject is:: CN

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1		1	Introduction to networks,.	2 4	T1
2		2	internet, Protocols and standards,	3 5	T1
3		1	the OSI model,	4 3	T1
4		1	Layers in OSI model	5 4	T1
5		1	, TCP/IP suite,	1 5	T1
6		2	Addressing	2 6	T1
7		2	, Analog and digital signals	1 7	T1

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.
2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.
3. MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS **UNIT - II**	2014-15 Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M. Ravi
Designation: Asst. Professor
Department:: IT
The Schedule for the whole Course / Subject is:: CN

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1		1	**Physical Layer:** introduction	3 5	T1
2		2	Digital transmission,	2 6	T1
3		2	multiplexing,	3 6	T1
4		2	transmission media,	5 6	T1
		2	circuit switched networks, Datagram networks, Virtual circuit networks		
5		1	, switch and Telephone network	2 6	T1

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.
2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.
MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS UNIT - III	2014-15 Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M. Ravi
Designation: Asst. Professor
Department:: IT
The Schedule for the whole Course / Subject is:: CN

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1		1	**Data link Layer:** Introduction,	4 7	T1
2		2	Block coding, cyclic codes,	3 5	T1
3		1	checksum,	2 5	T1
		2	framing, flow and error control,		
		2	Noiseless channels, noisy channels,		
4		2	HDLC, point to point protocols	3 6	T1

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.
2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.
MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS UNIT - IV	2014-15 Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M. Ravi
Designation: Asst. Professor
Department:: IT
The Schedule for the whole Course / Subject is:: CN

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1		1	**Medium Access sub Layer:** Random access, controlled access,.	4 5	T1
2		2	channelization	3 5	T1
3		1	, IEEE standards,	2 6	T1
4		1	Ethernet,	5 6	T1
5		1	Fast Ethernet,	2 4	T1
6		1	Giga-Bit Ethernet	3 4	T1
7		2	Wireless LANs	2 5	T1

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.
2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.
MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS UNIT - V	2014-15 Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M. Ravi
Designation: Asst. Professor
Department:: IT
The Schedule for the whole Course / Subject is:: CN

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1		1	Connecting LANs,	2 3	T1
2		2	backbone networks and	4 5	T1
3		2	virtual LANs,	5 4	T1
4		1	Wireless WANs,	3 2	T1
5		2	SONET,.	5 4	T1
6		2	frame relay and ATM	2 3	T1

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.
2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.
MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS UNIT - VI	2014-15 Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M. Ravi
Designation: Asst. Professor
Department:: IT
The Schedule for the whole Course / Subject is:: CN

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1		1	**Network Layer:** Logical addressing,.	1 3	T1
2		1	internetworking,	2 4	T1
3		1	tunneling,	3 5	T1
4		1	address mapping	4 6	T1
		1	, ICMP, IGMP	5 3	
		1	forwarding, uni-cast routing protocols,	4 6	
5		1	, multicast routing protocols	1 3	T1

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.
2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.
MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS UNIT - VII	2014-15 Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M. Ravi
Designation: Asst. Professor
Department:: IT
The Schedule for the whole Course / Subject is:: CN

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1		1	**Transport Layer:** Process to process delivery	3 4	T1
2		1	, UDP and TCP protocols,	2 5	T1
3		2	SCTP, data traffic,	1 8	T1
4		1	congestion, congestion control,	2 6	T1
		1	QoS, integrated services,		
5		1	differentiated services, QoS in switched networks	4 8	T1

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.
2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.
MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS UNIT - VIII	2014-15 Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M. Ravi
Designation: Asst. Professor
Department:: IT
The Schedule for the whole Course / Subject is:: CN

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1		1	**Application Layer:** Domain name space, DNS In internet,	2 4	T1
2		1	electronic mail, FTP, WWW, HTTP,	2 5	T1
3		1	SNMP, multi-media,	2 6	T1
4		1	network security	2 5	T1

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.
2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.
MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	COURSE COMPLETION STATUS	2014-15
		Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M. Ravi

Subject:: Asst. Professor Subject Code:

Department:: IT

Actual Date of Completion & Remarks, if any

Units	Remarks	Nos. of Objectives Achieved
Unit 1		10
Unit 2		10
Unit 3		10
Unit 4		8
Unit 5		7
Unit 6		7
Unit 7		7
Unit 8		4

Signature of Dean of School
Date:

Signature of Faculty
Date:

NOTE: AFTER THE COMPLETION OF EACH UNIT MENTION THE NUMBER OF OBJECTIVES ACHIEVED.

	TUTORIAL SHEETS - I	2014-15
		Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M. Ravi
Designation: Asst. Professor
Department:: IT
The Schedule for the whole Course / Subject is:: CN

Date:

This Tutorial corresponds to Unit Nos.1, 2, 3&4 Time:

Q1. Explain different types of network topologies with an example?

Q2. Compare and contrast between OSI and TCP/IP model protocols

Q3. Compare and contrast between Circuit switched and datagram switched networks

Q4. Explain the noiseless channels protocols with a suitable example?

Q5. Explain the controlled access protocols with an example?

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the objectives to which these questions / Problems are related.

Signature of Dean of School
Date:

Signature of Faculty
Date:

	TUTORIAL SHEETS - II	2014-15
		Regulation: R12

FACULTY DETAILS:

Name of the Faculty:: M. Ravi
Designation: Asst. Professor
Department:: IT
The Schedule for the whole Course / Subject is:: CN

Date:

This Tutorial corresponds to Unit Nos.5,6,7&8 Time:

Q1.With a neat sketch explain the SONET layers?

Q2.Explain with a frame format of ICMP and IGMP?

Q3.Explain any one of the uni-cast routing protocols with example?

Q4.write a short note on UDP,TCP and sctp protocols

Q5. Write a short notes on Domain name space , SNMP and multi-media

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the objectives to which these questions / Problems are related.

Signature of Dean of School
Date:

Signature of Faculty
Date:

	ILLUSTRATIVE VERBS FOR STATING INSTRUCTIONAL OBJECTIVES	2014-15
		Regulation: R12

These verbs can also be used while framing questions for Continuous Assessment Examinations as well as for End – Semester (final) Examinations.

ILLUSTRATIVE VERBS FOR STATING **GENERAL OBJECTIVES**

Know Comprehend	Understand Apply	Analyze Design	Generate Evaluate

ILLUSTRATIVE VERBS FOR STATING **SPECIFIC OBJECTIVES:**

A. Cognitive Domain

1	2	3	4	5	6
Knowledge	**Comprehension Understanding**	**Application** of knowledge & comprehension	**Analysis** of whole w.r.t. its constituents	**Synthesis** combination of ideas/constituents	**Evaluation** judgement
Define	Convert	Change	Breakdown	Categorize	Appraise
Identify	Defend	Compute	Differentiate	Combine	Compare
Label	Describe (a	Demonstrate	Discriminate	Compile	Conclude
List	procedure)	Deduce	Distinguish	Compose	Contrast
Match	Distinguish	Manipulate	Separate	Create	Criticize
Reproduce	Estimate	Modify	Subdivide	Devise	Justify
Select	Explain why/how	Predict		Design	Interpret
State	Extend	Prepare		Generate	Support
	Generalize	Relate		Organize	
	Give examples	Show		Plan	
	Illustrate	Solve		Rearrange	
	Infer			Reconstruct	
	Summarize			Reorganize	
				Revise	

B. Affective Domain		**C. Psychomotor Domain (skill development)**				
Adhere	Resolve	Bend	Dissect	Insert	Perform	Straighten
Assist	Select	Calibrate	Draw	Keep	Prepare	Strengthen
Attend	Serve	Compress	Extend	Elongate	Remove	Time
Change	Share	Conduct	Feed	Limit	Replace	Transfer
Develop		Connect	File	Manipulate	Report	Type
Help		Convert	Grow	Move preciselyReset		Weigh
Influence		Decrease	Handle	Operate	Run	
Initiate		Demonstrate	Increase	Paint	Set	

	LESSON PLAN **Unit-1**	2014-15 Regulation: R12

Name of the Faculty: M. Ravi

Subject CN Subject Code

Unit I

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
1	Introduction to networks,.	**50min**	**T1,RB1**	Black board
2,3	internet, Protocols and standards,	**100min**	**T1,RB1**	Black board
4	the OSI model,	**50min**	**T1,RB1**	Black board
5	Layers in OSI model	**50min**	**T1,RB1**	Black board
6	, TCP/IP suite,	**50min**	**T1,RB1**	Black board
7,8	Addressing	**100min**	**T1,RB1**	Black board
9,10	, Analog and digital signals	**100min**	**T1,RB1**	Black board

On completion of this lesson the student shall be able to(Outcomes)

1. Learn the concepts of networking, internet standards and protocols

2. Examine the different types of protocols of OSI and TCP/IP and compared

3. Learn the different types addressing mode and signals

	ASSIGNMENT **Unit-I**	2014-15
		Regulation: R12

Assignment / Questions

1.What are the different types of network topology explain with an example

2. Explain the TCP/IP model protocol

3. Explain the different types of addressing modes

Signature of Faculty

Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN Unit-II	2014-15
		Regulation: R12

Name of the Faculty: M. Ravi

Subject CN Subject Code

Unit **II**

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
11	**Physical Layer:** introduction	**50min**	**T1,RB1**	Black board
12,13	Digital transmission,	**100min**	**T1,RB1**	Black board
14,15	multiplexing,	**100min**	**T1,RB1**	Black board
16,17	transmission media,	**100min**	**T1,RB1**	Black board
18,19	circuit switched networks, Datagram networks, Virtual circuit networks	**100min**	**T1,RB1**	Black board
20	switch and Telephone network	**50min**	**T1,RB1**	Black board

On completion of this lesson the student shall be able to

1.Learned about the Physical Layer how it's functionality working in the transmission media.

2.Learned about the digital and analog transmission media

3.Learned about the three defferent networks and compared

	ASSIGNMENT **Unit-II**	2014-15
		Regulation: R12

Assignment / Questions

1.With a neat diagram explain the multiplexing techniques

2.Explain the different types of transmission media

3. Compare and contrast circuit ,datagram and virtual circuits

Signature of Faculty

Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN **Unit-III**	2014-15 Regulation: R12

Name of the Faculty: M. Ravi

Subject CN Subject Code

Unit **III**

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
21	**Data link Layer:** Introduction,	**50min**	**T1,RB1**	Black board
22,23	Block coding, cyclic codes,	**100min**	**T1,RB1**	Black board
24	checksum,	**50min**	**T1,RB1**	Black board
25,26	framing, flow and error control,	**100min**	**T1,RB1**	Black board
27,28	Noiseless channels, noisy channels,	**100min**	**T1,RB1**	Black board
29,30	HDLC, point to point protocols	**100min**	**T1,RB1**	Black board

On completion of this lesson the student shall be able to (Outcomes)

1. Learned about the data link layer functionality how it is working.
2. Learned how to convert from block to cyclic codes
3. Learned about the checksum how to identify and rectifying them during the transmission(sender side and receiver side)
4. Learned how to convert from packets to frame at this layer

	ASSIGNMENT **Unit-III**	2014-15
		Regulation: R12

Assignment / Questions

1.Define the checksum? Explain with your own example?

2.Explain about the noiseless channels?

3.Explain the frame format of the HDLC protocol

Signature of Faculty

Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN Unit-IV	2014-15
		Regulation: R12

Name of the Faculty: M. Ravi

Subject CN Subject Code

Unit IV

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
31	**Medium Access sub Layer:** Random access, controlled access,.	**50min**	**T1,RB1**	Black board
32,33	channelization	**100min**	**T1,RB1**	Black board
34	IEEE standards,	**50min**	**T1,RB1**	Black board
35	Ethernet,	**50min**	**T1,RB1**	Black board
36	Fast Ethernet,	**50min**	**T1,RB1**	Black board
37	Giga-Bit Ethernet	**50min**	**T1,RB1**	Black board
38,39	Wireless LANs	**100min**	**T1,RB1**	Black board

On completion of this lesson the student shall be able to (Outcomes)

1. Learned the differentiate between standards
2. Learned the differentiate about the wireless and wired LANs.

	ASSIGNMENT **Unit-IV**	2014-15
		Regulation: R12

Assignment / Questions

1. Explain about the channelization?
2. Compare and contrast between the fast Ethernet and gigabit Ethernet

Signature of Faculty

Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN **Unit-V**	2014-15 Regulation: R12

Name of the Faculty: M. Ravi

Subject CN Subject Code

Unit V

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
40	Connecting LANs,	**50min**	**T1,RB1**	Black board
41,42	backbone networks and	**100min**	**T1,RB1**	Black board
43,44	virtual LANs,	**100min**	**T1,RB1**	Black board
45	Wireless WANs,	**50min**	**T1,RB1**	Black board
46.47	SONET,.	**100min**	**T1,RB1**	Black board
48,49	frame relay and ATM	**100min**	**T1,RB1**	Black board

On completion of this lesson the student shall be able to (Outcomes)

1. Learned the differentiate between back bone and virtual networks
2. Learned about the wireless LANs and WANs
3. Learned about the SONET and ATM

	ASSIGNMENT **Unit-V**	2014-15
		Regulation: R12

Assignment / Questions

1.With a neat diagram explain about the virtual circuit

2.Explain the SONET layers functionalities?

.

Signature of Faculty

Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN **Unit-VI**	2014-15 Regulation: R12

Name of the Faculty: M. Ravi

Subject CN Subject Code

Unit VI

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
50	**Network Layer:** Logical addressing,.	**50min**	**T1,RB1**	Black board
51	internetworking,	**50min**	**T1,RB1**	Black board
52	tunneling,	**50min**	**T1,RB1**	Black board
53	address mapping	**50min**	**T1,RB1**	Black board
54	, ICMP, IGMP	**50min**	**T1,RB1**	Black board
55	forwarding, uni-cast routing protocols,	**50min**	**T1,RB1**	Black board
56	, multicast routing protocols	**50min**	**T1,RB1**	Black board

On completion of this lesson the student shall be able to (Outcomes)

1.Learned about the functionality of network layer

2.Learne about the address mapping from IPV4 toIPV6 and vice versa

3.Learne about the unicast and multicast routing protocols algorithms how they are working

	ASSIGNMENT **Unit-VI**	2014-15
		Regulation: R12

Assignment / Questions

1. **Compare and contrast between the IPV4 and IPV6**
2. **Explain about the IGMP protocol**
3. **Explain about the ICMP protocol**

Signature of Faculty

Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN **Unit-VII**	2014-15 Regulation: R12

Name of the Faculty: M. Ravi

Subject CN Subject Code

Unit VII

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
57	**Transport Layer:** Process to process delivery	**50min**	**RB1,T1**	Black board
58	UDP and TCP protocols,	**50min**	**RB1,T1**	Black board
59,60	SCTP, data traffic,	**50min**	**RB1,T1**	Black board
61	congestion, congestion control,	**50min**	**RB1,T1**	Black board
62	QoS, integrated services,	**50min**	**RB1,T1**	Black board
63	differentiated services, QoS in switched networks	**50min**	**RB1,T1**	Black board

On completion of this lesson the student shall be able to

1. L:earned about the functionality of the transport layer
2. Learned and compared the differentiate between UDP,TCP and SCTP protocols

	ASSIGNMENT **Unit-VII**	2014-15
		Regulation: R12

Assignment / Questions

1. Write short notes on the following:
   a.UDP

   b. TCP

   c. SCTP

   d: QoS

Signature of Faculty

Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN Unit-VIII	2014-15
		Regulation: R12

Name of the Faculty: M. Ravi

Subject CN Subject Code

Unit VIII

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
64	**Application Layer:** Domain name space, DNS In internet,	**50min**	**RB1,T1**	Black board
65	electronic mail, FTP, WWW, HTTP,	**50min**	**RB1,T1**	Black board
66	SNMP, multi-media,	**50min**	**RB1,T1**	Black board
67	network security	**50min**	**RB1,T1**	Black board

On completion of this lesson the student shall be able to

1. Learned abot the working functionality of application layer
2. Learned about the FTP,WWW,HTTP protocols how thw are working in the application layer

	ASSIGNMENT **Unit-VIII**	2014-15
		Regulation: R12

Assignment / Questions

1. Write short notes on the following:

a.FTP

b. HTTP

c. WWW

d.SNMP

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Signature of Faculty

Note: Mention for each question the relevant objectives and outcomes.