

Department of Telecommunication

SEMESTER : VIII
BRANCH : TCE
SUBJECT : OCN
SUBJECT CODE : 10TE81
NO OF HRS/WK : 6

NAME OF THE FACULTY : S. Routray
DATE OF COMMENCEMENT : 18.1.2016
DATE OF CLOSING : 15.5.2016
CLASS STRENGTH : 46 / 40
TOTAL HRS : 60

S. No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1/2	Unit I/2	21.01.16	INTRODUCTION TO OPTICAL NETWORKS:	Black Board, chalk & duster		
2/3	I/3	22.01.16	Telecommunication networks,	..		
4/5	I/5	23.01.16	First generation optical networks,	..		
6/7	I/7	28.01.16	Multiplexing techniques, Second-generation optical networks,	..		
8/9	I/9	29.01.16	System and network evolution. Non-linear effects SPM	..		
10/11	I/10	30.01.16	CPM, Four wave mixing, Solitons	..		
12/13	II/3	04.02.16	COMPONENTS	..	Asg – I	
14/15	II/5	05.02.16	Working of Couplers, 3 and 4 port couplers	..		
16/17	II/7	11.02.16	Isolators and Circulators	..		
18/19	II/9	12.02.16	Working of wave length Multiplexes	..		
20/21	II/11	13.02.16	Filters and Optical amplifiers	..		
22/23	III/2	18.02.16	Introduction to optical systems	..		
24/25	III/4	25.02.16	Transmitters	..	Asg – II	
26/27	III/6	26.02.16	Working principle of detector	..		
28/29	III/8	03.03.16	Switches and Wavelength converters			
30/31	IV/2	04.03.16	TRANSMISSION SYSTEM ENGINEERING			
32/33	IV/4	05.03.16	System model and Power penalty			
34/35	IV/6	10.03.16	Transmitter, and Receiver	..		
36/37	IV/8	11.03.16	Crosstalk	..	Asg – III	
38/39	V/2	17.03.16	Dispersion, Overall design Consideration	..		
40/41	V/4	18.03.16	First generation networks SONET/SDH	..		
42/43	V/6	19.03.16	Computer interconnects, MANs	..		
44/45	V/8	24.03.16	Layered architecture for SONET	..		
46	V/10	31.03.16	Second generation networks	..		
47	VI/2	01.04.16	WAVELENGTH ROUTING NETWORKS	..		
48	VI/4	02.04.16	Optical layer	..		

49	VI/6	07.04.16	Node design	BB, C&D	Asg – IV	
50	VI/8	15.04.16	Network design and operation	„		
51	VI/10	16.04.16	Routing and wavelength assignment	„		
52	VII/2	21.04.16	VIRTUAL TOPOLOGY DESIGN	„		
53	VII/4	12.04.16	Combines SONET/WDM network design	„		
54	VII/6	23.04.16	an ILP formulation, Regular virtual	„		
55	VII/8	28.04.16	Control and management, Network management configuration management	„	Asg – V	
56	VII/10	29.04.16	Performance management, fault management.	„		
57	VIII/2	30.04.16	ACCESS NETWORKS:	„		
58	VIII/4	05.05.16	Network architecture overview, present and future access networks	„		
59	VIII/6	06.05.16	HFC, FTTC	„		
60	VIII/8	07.05.16	Optical access networks, Deployment issues	„		
61	VIII/10	12.05.16	Photonic packet switching	„		
62	VIII/12	13.05.16	OTDM, Multiplexing and demultiplexing	„		
63	VIII/13	14.05.16	Synchronization	„	Asg – VI	
64			Revision of Unit – 1	„		
65			Revision of Unit – 2	„		
66			Revision of Unit – 3	„		
67			Revision of Unit – 4	„		
68			Revision of Unit – 5	„		
69			Revision of Unit – 6	„		
70			Revision of Unit – 7	„		
71			Revision of Unit – 8	BB, C & D		

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Department of Telecommunication

SEMESTER : VIII	NAME OF THE FACULTY : SHARMILA.K.P
BRANCH : TCE	DATE OF COMMENCEMENT : 21.1.2016
SUBJECT : GSM	DATE OF CLOSING : 21.5.2016
SUBJECT CODE : 10TE82	CLASS STRENGTH : 86
NO OF HRS/WK : 06	TOTAL HRS : 52

Session No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	1/1	21.1.16	UNIT - 1 GSM ARCHITECTURE AND INTERFACES Introduction	Board, chalk, duster		
2	2/1	21.1.16	GSM frequency bands, GSM PLMN, Objectives of a GSM PLMN	„		
3	3/1	22.1.16	GSM PLMN Services, GSM Subsystems, GSM Subsystems entities	„		
4	4/1	22.1.16	GSM interfaces, The radio interface (MS to BSC), A bits interface (BTS to BSC), A interface (BSC to MSC)	„		
5	5/1	23.1.16	Interfaces between other GSM entities, Mapping of GSM layers onto OSI layers.	„		

6	6/1	23.1.16	Test-GSM subsystems, Mapping of GSM layers onto OSI layers.	„		
7	1/2	28.1.16	UNIT - 2 RADIO LINK FEATURES IN GSM SYSTEMS: Introduction,	„	Assignment- I	
8	2/2	28.1.16	Radio link measurements,	Board, chalk, duster		
9	3/2	29.1.16	Radio link features of GSM- Dynamic power control,	„		
10	4/2	29.1.16	Discontinuous transmission (DTX)	„		
11	5/2	30.1.16	SFH	„		
12	6/2	30.1.16	Future techniques to reduce interface in GSM	„		
13	7/2	4.2.16	Channel borrowing, Smart antenna	„	Assignment -II	
14	1/3	4.2.16	UNIT - 3 GSM LOGICAL CHANNELS AND FRAME STRUCTURE: Introduction	„		
15	2/3	5.2.16	GSM logical channels, Allowed logical channel combinations			
16	3/3	5.2.16	TCH multi frame for TCH/H, CCH multi frame			
17	4/3	11.2.16	GSM frame structure			
18	5/3	11.2.16	GSM bursts, Normal burst, Synchronization burst	„		
19	6/3	12.2.16	Frequency correction channel burst, Access burst, Data encryption in GSM	„	Assignment –III	
20	7/3	12.2.16	Mobility management, Location registration, Mobile identification.	„		

21	1/4	13.2.16	UNIT - 4 SPEECH CODING IN GSM: Introduction	„		
22	2/4	13.2.16	Speech coding methods, Speech code attributes	„		
23	3/4	18.2.16	ITU-T standards, Bit rate, Waveform coding			
24	4/4	18.2.16	Time domain waveform coding, Frequency domain waveform coding	Board, chalk, duster		
25	5/4	25.2.16	GSM Vcoders, Full-rate vocoder, Half-rate vocoder	„		
26	6/4	25.2.16	MESSAGES, SERVICES, AND CALL FLOWS IN	„		
27	7/4	26.2.16	GSM: Introduction, GSM PLMN services.			
28	1/5	26.2.16	UNIT - 5 GSM messages	„	Assignm nt –IV	
29	2/5	3.3.16	MS-BS interface, BS to MSC messages o n the A interface, MSC to VLR and HLR	„		
30	3/5	3.3.16	GSM call setup by an MS, Mobile-Terminated call, Call release, Handover	„		
31	4/5	4.3.16	Data services, Data interworking	„		
32	5/5	4.3.16	SM data services, Interconnection for switched data, Group 3 fax	„		
33	6/5	5.3.16	Packet data on the signaling channel, User-to-user signaling, SMS, GSM GPRS.	„		
34	1/6	5.3.16	UNIT - 6 PRIVACY AND SECURITY IN GSM: Introduction	Board, chalk, duster	Assignm ent -V	
35	2/6	10.3.16	Wireless security requirements, Privacy of communications	„		

36	3/6	10.3.16	Authentication requirements, System lifetime requirements	„		
37	4/6	11.3.16	Physical requirements, SIM cards	„		
38	5/6	11.3.16	Security algorithms for GSM	„		
39	6/6	17.3.16	Token-based authentication	„		
40	7/6	17.3.16	Token-based registration, Token-based challenge.	„		
41	1/7	18.3.16	UNIT - 7 PLANNING AND DESIGN OF A GSM WIRELESS NETWORK: Introduction, Tele traffic models, Call model, Topology model,	„		
42	2/7	18.3.16	Mobility in cellular / PCS networks, Application of a fluid flow model	„		
43	3/7	19.3.16	Planning of a wireless network	„		
44	4/7	19.3.16	Radio design for a cellular / PCS network, Radio link design, Coverage planning	„		
45	5/7	24.3.16	Design of a wireless system, Service requirements, Constraints for hardware implementation, Propagation path loss, System requirements	„		
46	6/7	24.3.16	Spectral efficiency of a wireless system, Receiver sensitivity and link budget	„		
47	7/7	31.3.16	Selection of modulation scheme, Design of TDMA frame, Relationship between delay spread and symbol rate, Design example for a GSM system.			
48	1/8	31.3.16	UNIT - 8 MANAGEMENT OF GSM NETWORKS: Introduction, Traditional	„		

			approaches to NM			
49	2/8	1.4.16	TMN, TMN layers, TMN nodes, TMN interface, TMN management services	„		
50	3/8	1.4.16	Management requirements for wireless networks, Management of radio resources, Personal mobility management, Terminal mobility, Service mobility management	„		
51	4/8	2.4.16	Platform-centered management, SNMP, OSI systems management	Board, chalk, duster		
52	5/8	2.4.16	NM interface and functionality, NMS functionality, OMC functionality	„		
53	6/8	7.4.16	Management of GSM network, TMN applications	„		
54	7/8	7.4.16	GSM information model, GSM containment tree, Future work items.	„		
55		15.4.16	Revision of Unit -1	„		
56		16.4.16	Revision of Unit – 2	„		
57		21.4.16	Revision of Unit –3	„		
58		22.4.16	Revision of Unit –4	„		
59		23.4.16	Revision of Unit –5	„		
60		28.4.16	Revision of Unit –6	„		
61		29.4.16	Revision of Unit –7	„		
62		30.4.16	Revision of Unit -8	„		

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Department of Telecommunication

SEMESTER :VIII
BRANCH : TCE
SUBJECT : Network Security
SUBJECT CODE :
NO OF HRS/WK : 6

NAME OF THE FACULTY : Miss.Nayan
DATE OF COMMENCEMENT : 28.01.2016
DATE OF CLOSING : 15.5.2016
CLASS STRENGTH :
TOTAL HRS : 65

Session No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	1,1	28.01.16	Unit-1- Introduction	Board, chalk, duster		
2	2,1	29.01.16	OSI Security Architecture, OSI Attacks	„		
3	3/1	30.01.16	Security Services, Security Mechanisms , Model for network Security	„		
4	1/2	4.02.16	Unit – 2: Classical Encryption Tecniques : Symmetric cipher model	„		
5	2/2	5.02.16	Cryptanalysis,Substitution techniques	„		
6	3/2	11.02.16	Hill cipher	„		
7	4,5/2	12.02.16	Block cipher principles ,Feistel cipher	„		
8	6,7/2	13.02.16	Data encryption standard, differential and linear cryptanalysis	Board, chalk, duster		
9	8,9/2	18.02.16	Block cipher design principles, and Modes of Operation	„		
10	10,11/2	25.02.16	Evaluation Criteria	„		

			for Advanced Encryption Standard, The AES Cipher..			
11	12,13/2	26.02.16	The AES Cipher(contd)	„		
12	1,2/3	03.03.16	Unit –3 Principles of Public-Key Cryptasystems, The RSA algorithm,	„		
13	3,4/3	04.03.16	The RSA algorithm	„	Assignm ent -I	
14	5,6/3	05.03.16	Key Management, Diffie - Hellman Key Exchange,			
15	7,8/3	10.03.16	Elliptic Curve Arithmetic	„		
16	9,10/3	11.03.16	Authentication functions	“		
17	11,12/3	17.03.16	Hash function	“		
18	13,14/3	18.03.16	Birthday attack and security of hash functions	“		
19	1,2/4	19.03.16	UNIT - 4 Digital signatures,	“		
20	3,4/4	24.03.16	Authentication Protocols,	“		
21	5,6/4	17.03.16	Authentication Protocols,	“		
22	7,8/4	18.03.16	Digital Signature Standard	„		
23	1/5	19.03.16	UNIT - 5 Web Security Consideration,	„	Assignm ent –II	
24	2,3/5	24.03.16	Security socket layer (SSL)	“		
25	4,5/5	31.03.16	Security socket layer (SSL)	„		
26	6/5	01.04.16	Transport layer security, Secure Electronic Transaction.	„		
27	1,2/6	07.04.16	UNIT - 6 Intruders, Intrusion Detection	„		
28	3,4/6	15.04.16	Password Management	“		
29	5,6/6	16.04.16	Password Management	“		
30	1,2/7	21.04.16	UNIT - 7 MALICIOUS SOFTWARE:introducation	“	Assignm nt –III	

31	3/7	22.04.16	Viruses and Related Threats,	Board, chalk, duster		
32	4,5/7	23.04.16	Viruses and Related Threats, Virus Countermeasures	„		
33	1,2/8	28.04.16	UNIT - 8 Firewalls Design Principles,	“		
34	3,4/8	29.04.16	Firewall configurations	„		
35	5,6/8	30.04.16	Trusted Systems.	„		

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Department of Telecommunication

SEMESTER : VIII

BRANCH : TCE

SUBJECT : HPCN

SUBJECT CODE : 10EC835

NO OF HRS/WK : 06

NAME OF THE FACULTY : Shruthi M

DATE OF COMMENCEMENT : 21.1.2016

DATE OF CLOSING : 21.5.2016

CLASS STRENGTH : 25

TOTAL HRS : 52

Session No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	1/1	21.1.16	UNIT - 1 Introduction to HPCN	Board, chalk, duster		
2	2/1	21.1.16	History of communication networks	„		
3	3/1	22.1.16	Networking principles	„		
4	4/1	22.1.16	Future networks Internet	„		
5	5/1	23.1.16	Pure ATM networks	„		
6	6/1	23.1.16	Cable networks, wireless	„	Assignment- I	
7	1/2	28.1.16	UNIT - 2 Network services and layered architecture, Applications	„		
8	2/2	28.1.16	Traffic Characterization and QoS	Board, chalk, duster		

9	3/2	29.1.16	Network services, high performance networks	„		
10	4/2	29.1.16	Network elements, Layered architecture	„		
11	5/2	30.1.16	ODN model	„		
12	6/2	30.1.16	Network architecture	„		
13	7/2	4.2.16	Network bottlenecks	„	Assignment -II	
14	1/3	4.2.16	UNIT - 3 Internet and TCP/IP networks Multicast IP	„		
15	2/3	5.2.16	Mobile IP			
16	3/3	5.2.16	TCP & UDP			
17	4/3	11.2.16	Applications, FTP, SMTP			
18	5/3	11.2.16	Internet success and limitations	„		
19	6/3	12.2.16	Performance of TCP/IP	„		
20	7/3	12.2.16	Performance of circuit switched networks	„	Assignment –III	
21	1/4	13.2.16	UNIT – 5 ATM Main features of ATM	„		
22	2/4	13.2.16	Addressing	„		
23	3/4	18.2.16	Signaling and routing			
24	4/4	18.2.16	ATM header structure	Board, chalk, duster		
25	5/4	25.2.16	ATM AAL	„		
26	6/4	25.2.16	Internetworking with ATM	„	Assignment –IV	
28	1/5	26.2.16	UNIT – 6 Wireless networks Link level design	„		
29	2/5	3.3.16	Channel access	„		

30	3/5	3.3.16	Network design	„		
31	4/5	4.3.16	Wireless networks today, Future networks	„		
32	5/5	4.3.16	Ad hoc networks, high speed digital cellular	„		
33	6/5	5.3.16	Home RF & bluetooth	„	Assignment -V	
34	1/6	5.3.16	UNIT - 7 Control of networks, objectives & methods	Board, chalk, duster		
35	2/6	10.3.16	Circuit switched and datagram networks	„		
36	3/6	10.3.16	Network economics, derived demand	„		
37	4/6	11.3.16	ISP	„		
38	5/6	11.3.16	Subscriber demand model	„		
39	6/6	17.3.16	Emperical models	„		
41	1/7	18.3.16	UNIT - 8 Optical networks	„		
42	2/7	18.3.16	WDM systems	„		
43	3/7	19.3.16	Optical cross connects	„		
44	4/7	19.3.16	Optical LAN	„		
45	5/7	24.3.16	Optical path and networks	„		
48	1/8	31.3.16	UNIT - 4 SONET	„		
49	2/8	1.4.16	DWDM	„		
50	3/8	1.4.16	FTH	„		
51	4/8	2.4.16	DSL	Board, chalk, duster		

52	5/8	2.4.16	Intelligence networks, CATV	„		
55		15.4.16	Revision of Unit -1	„		
56		16.4.16	Revision of Unit – 2	„		
57		21.4.16	Revision of Unit –3	„		
58		22.4.16	Revision of Unit –5	„		
59		23.4.16	Revision of Unit –6	„		
60		28.4.16	Revision of Unit –7	„		
61		29.4.16	Revision of Unit –8	„		
62		30.4.16	Revision of Unit -4	„		

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Department of Telecommunication

SEMESTER : VIII
BRANCH : TCE /ECE
SUBJECT : MMC
SUBJECT CODE: 10EC841
NO OF HRS/WK: 5

NAME OF THE FACULTY : Mrs.Pappa.M
DATE OF COMMENCEMENT : 21.01.2016
DATE OF CLOSING : 20.05.2016
CLASS STRENGTH : 86/70
TOTAL HRS : 75

Session No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	1/1	21.01.16	Introduction, multimedia information representation, multimedia networks	Board, chalk		
2	2/1	21.01.16	Different types of multimedia networks	„		
3	3/1	22.01.16	Multimedia applications	„	Assignment- I	
4	4/1	22.01.16	Media types, Communication modes, Network types	„		
5	5/1	23.01.16	Multipoint conferencing, Network QoS	„		
6	6/1	23.01.16	Application QoS, Problems	„		
7	7/1	28.01.16	Test on Chapter-I			
8	1/2	28.01.16	Digitization Principles- Encoder Design, Decoder Design, Quantization	Board, chalk		
9	2/2	29.01.16	Text-Unformatted, Formatted, Hypertext	„		
10	3/2	29.01.16	Images-Graphics, Digitized Documents, Pictures	„	Assignment -II	

11	4/2	30.01.16	Digital Cameras and Scanners, Problems	„		
12	5/2	30.01.16	Audio-PCM Principles, problems	„		
13	6/2	04.02.16	Synthesized Audio	„		
14	7/2	04.02.16	Video-Broadcast Television, Digital video standards	„		
15	8/2	05.02.16	Test on Chapter-II			
16	1/3	05.02.16	Compression Principles and different methods of Compression	Board, chalk		
17	2/3	11.02.16	Text Compression-Static Huffman coding, Problems			
18	3/3	11.02.16	Dynamic Huffman coding, Problems	„		
19	4/3	12.02.16	Arithmetic coding, Problems	„	Assignment –III	
20	5/3	12.02.16	Lempel- ziv and Lempel-ziv-welsh coding	„		
21	6/3	13.02.16	Image Compression-GIF,TIFF	„		
22	7/3	13.02.16	Image Compression-Digitized Documents	„		
23	8/3	18.02.16	JPEG Compression			
24	9/3	18.02.16	Test on Chapter-III			
25	1/5	25.02.16	Introduction to LANs, Ethernet/IEEE 802.3	Board, chalk		
26	2/5	25.02.16	Token Ring-Control token, wiring configuration, Frame format	„		
27	3/5	26.02.16	Ring management, Priority operation	„		
28	4/5	26.02.16	Bridges-Transparent Bridges	„	Assignment –IV	
29	5/5	03.03.16	Bridges-Source Routing Bridges	„		
30	6/5	03.03.16	FDDI-Network, Frame transmission and reception	„		
31	7/5	04.03.16	Performance of FDDI and TTRT	„		
32	8/5	04.03.16	High speed LANs-Fast Ethernet	„		

33	9/5	05.03.16	High speed LANs-Switched fast Ethernet, Gigabit Ethernet	Board, chalk		
34	10/5	05.03.16	LAN Protocols	„		
35	11/5	10.03.16	Test on Chapter-V			
36	1/6	10.03.16	Internet Networking components and Protocols, IP Datagram	Board, chalk		
37	2/6	11.03.16	Fragmentation and Reassembly	„		
38	3/6	11.03.16	IP addresses, subnets	„		
39	4/6	17.03.16	ARP and RARP	„	Assignment –V	
40	5/6	17.03.16	IPV6-Datagram format, Address structure	„		
41	6/6	18.03.16	IPV6-Extension headers, Auto configuration	„		
42	7/6	18.03.16	IPV6/IPV4 Interoperability	„		
43	8/6	19.03.16	Test on Chapter-VI			
44	1/7	19.03.16	Broadband ATM Networks-Cell Format and Switching Principles	Board, chalk		
45	2/7	24.03.16	Switch Architectures	„		
46	3/7	24.03.16	Protocol Architecture	„	Assignment –VI	
47	4/7	31.03.16	ATM Adaptation Layer-AAL1,2	„		
48	5/7	31.03.16	ATM Adaptation Layer-AAL3/4,AAL5	„		
49	6/7	01.04.16	ATM Layer	„		
50	7/7	01.04.16	ATM LANs, Call Processing	„		
51	8/7	02.04.16	LAN Emulation, Classical IP over ATM	„		
52	9/7	02.04.16	Test on Chapter-VII			
53	1/8	07.04.16	TCP/IP Protocol Suite	Board, chalk		
54	2/8	07.04.16	TCP-User services, Protocol Operation	„		

55	3/8	15.04.16	TCP-Error control, Congestion control	Board, chalk	Assignment –VII	
56	4/8	15.04.16	Connection termination	„		
57	5/8	16.04.16	UDP-User Services, Protocol operation	„		
58	6/8	16.04.16	RTP	„		
59	7/8	21.04.16	RTCP	„		
60	8/8	21.04.16	Test on Chapter-VIII			
61	1/4	22.04.16	Audio Compression-DPCM, ADPCM	Board, chalk		
62	2/4	22.04.16	Audio Compression-LPC, Code Excited LPC			
63	3/4	23.04.16	Audio Compression-Perceptual Coding, MPEG Audio Coders, Dolby Audio coders			
64	4/4	23.04.16	Video Compression Principles		Assignment–VIII	
65	5/4	28.04.16	Video Compression-H.261, H.263			
66	6/4	28.04.16	Error resilience Techniques-H.263			
67	7/4	29.04.16	MPEG 1,2			
68	8/4	29.04.16	MPEG 4,Error resilient techniques			
69		30.04.16	Revision			
70		30.04.16	Revision			

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