

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

							CO-P	O-PSO	GRANI	D MAT	RIX					
Ву	the e	end of e	each co	urse st	udent	will be	able to	 ว								
									I-I							
		CO1	Solve	the diff	ferentia	l equati	ions rela	ated to	various	engine	ering fie	elds				
		CO2				heorem										
		CO3										optimiz				
	-	CO4	Apply	double	integra	ation te	chnique	s in eva	luating	areas b	oundec	l by regio	on.			_
	_ S:	CO5	Learn	importa	ant tool	s of cal	culus ir	ı higher	dimen	sions. S	Students	will bec	ome fam	iliar with	n 2-dimen	sional
01	Mathematics		and 3	– dimei	nsional	coordin	nate sys	tems.								
BS01	em		DO1	DOA	DO2	T DO 4	DO5	DOC	DO7	DO0	DO0	DO10	DO11	DO12	DCO1	DCO2
	ath	CO1	PO1	PO2 2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	Ž	CO1	3	2	-	 -	-	-	-	-	-	-	-	1	-	-
		CO ₂	3	2	-	-	_	-	-	 -	<u> </u>	-	-	1	-	-
		CO4	3	2		_	_	_	-	_		_	_	1	_	_
		CO ₅	3	2		 	 	_	_			_	_	1	_	_
		003		_										*		
		CO1	Under	rstand t	he nrind	cinles s	uch as i	nterfere	ence and	d diffrac	ction to	design a	nd enhan	ce the re	solving p	ower
		CO1				strumer		111011010	Aice air	u umm.	otion to	design	na cina.	100 1110 12	301,1119 L	70 11 61
		CO2						R light S	Sources	and Ar	oply the	m to hole	ography			
		CO3				_							ts of mat	terials.		
		CO4				ital cond							-	-		
	sics	CO5				semicor	-									
2	hy			,	<i>/</i> 1											
BS02	ed F		PO1	РО	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
-	Applied Physics			2												
	Ą	CO1	3	2	-	-	-	-	-	-	-	-	-	1	-	-
		CO2	3	2	•	-	-	-	-	-	-	-	-	1	-	-
		CO3	3	2	-	-	-	-	-	-	-	-	-	1	-	-
		CO4	3	2	-	-	-	-	-	-	-	-	-	1	-	-
		CO5	3	2	-	-	-	-	-	-	-	-	-	1	-	-
			1								1		•	•		
		CO1	identi	fy the c	ontext,	topic, a	and piec	es of sr	ecific i	nforma	tion fro	m social	or transa	ctional d	lialogues	
			spoke	n by na	tive spe	eakers c	of Engli	sh (L3)							C	
		CO2	formu	late ser	ntences	using p	roper g	rammat	ical str	uctures	and cor	rect wor	d forms ((L3)		
	_	CO3	speak	clearly	on a sp	ecific to	opic usi	ng suita	ble dis	course i	marker	s in infor	mal discu	ussions (l	_3)	
	lish	CO4	write	summa	ries ba	sed on §	global c	ompreh	nension	of reac	ding/list	ening te	xts (L3)			
101	English	CO5	produ	ce a col	herent	paragra	ph inte	rpretin	g a figu	re/grap	h/chart	table (L	.4)			
HSM01		CO6	take n	otes wl	hile list	ening to	o a talk/	[/] lecture	to ans	wer que	estions	(L3)				
_	ativ															
	Communicative		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	mu	CO1	-	-	-	-	-	-	-	-	2	3	-	1	-	-
	mo	CO2	-	-	-	-	-	-	-	-	2	3	-	1	-	-
	ŏ	CO3	-	-	-	-	-	_	-	-	2	3	-	1	-	-



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		CO4	_	_	_	_	_	_	_	_	2	3	-	1	_	-
		CO5	-	-	-	-	-	-	-	-	2	3	-	1	-	-
		CO6	-	-	-	-	-	-	-	-	2	3	-	1	-	-
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	ပ	CO1	Under	rstand a	lgorithi	ns and	basic te	rminolo	ogy of C	7						
	ing	CO2		problei							roach					
	g us	CO3	Make	use of	1D and	2D arra	ys alon	g with	strings	for line	ar data	handling				
	Ni	CO4		mine th			-	_				<u>~</u>				
	n So	CO5	Imple	ment va	arious c	peratio	ons on c	lata file	S							
)1	plen		-			-										
ES01	Pro		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	for	CO1	1	2	3	2	1	-	-	-	3	3	1	2	1	2
	ing	CO2	2	3	3	2	-	-	-	-	1	1	2	2	2	2
	mm	CO3	3	3	3	2	-	-	-	-	2	1	2	2	2	3
	Programming for Problem Solving using	CO4	2	2	2	2	-	-	-	-	2	1	2	2	2	2
	Prc	CO5	2	2	2	2	-	-	-	-	2	1	2	2	1	2
		1	L		l .	1	1	1	1	1	l .	1	1	1		1
		CO1	Prepa	re engii	neering	drawin	gs as pe	er BIS c	convent	ions {U	ndersta	nd level,	KL2}			
		CO2												ces using	CAD so	ftware
	gn	CO2 Produce computer generated of orthographic projections of Lines and Plane surfaces using CAD software														
	Design	CO3	Use th	ne know	/ledge o	of ortho	graphic	projec	tions o	f Solids	to repr	esent en	gineerin	g informរ	ation/con	cepts
	Qρ		and p	resent t	he sam	e in the	e form o	of draw	ings {A _l	ply lev	el, KL3}					
	and	CO4	Use th	ne knov	vledge	of section	onal vie	ws and	Develo	pment	of Solid	l Surface	s in Real	time Ap	plications	{Apply
7	ics		level,	KL3}												
ES02	Graphics	CO5		•		_	of sim	ple obje	ects rea	ding the	e ortho	graphic p	rojectio	ns of tho	se	
	Ğ			ts{Analy			1	1	ı	1	1		ı			ı
	Engineering		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	eel	CO1	2	1	1	-	3	-	-	-	-	2	-	1	-	-
	gin	CO2	2	1	1	-	3	-	-	-	-	2	-	1	-	-
	E	CO3	2	2	2	-	3	-	-	-	-	2	-	1	-	-
		CO4	2	2	2	-	3	-	-	-	-	2	-	1	-	-
		CO5	2	2	2	-	3	-	-	-	-	2	-	1	-	-
															1. 1	
		CO1													lialogues	
	-			en by na ers in in					speak c	еагіу о	ıı a spec	inc topi	using s	uitable d	iscourse	
	Lat	CO2					`		to ana	ver and	etione i	n English	r formul	ate cento	nces usin	σ
	İsh	CO2												ely in cor		5
ا بــ	lgu			inations		Juanu	. Jo unu	2011000	,, 51 G IV	, u	450 1	550	211001170	, 111 001	pourivo	
HSM01L	Communicative English Lab-I	CO3				sed on	global c	omprel	nension	of read	ding/list	tening te	xts; proc	luce a co	herent w	rite-up
1SI	ativ					-	_				_	_			unication	
-	nic		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	mu	CO1	-	-	-	-	-	-	-	-	2	3	-	1	-	-
	E C	CO2	-	-	-	-	-	-	-	-	2	3	-	1	-	-
	ŭ	CO3	-	-	-	-	-	-	_	_	2	3	_	1		_
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		CO1	Comm	mahan d	the we	rione e	onconto	of o	longra	0.00						
	3 C	CO1						of a C	iangua	ige						
	Jaing	CO2		lop algo					a 1	a1.:11a						
	ing (CO3						oblem s	oiving	SKIIIS.						
	Programming for Problem Solving using	CO4	Acqu	ire mod	lular pı	rogramı	ming sl	xills.								
11	olem															
ES01L	Prol		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	g for	CO1	1	2	3	2	1	-	-	-	3	3	1	2	1	2
	nmin	CO2	2	3	3	2	-	-	-	-	1	1	2	2	2	2
	ograr	CO3	3	3	3	2	-	-	-	-	2	1	2	2	2	3
	Pr	CO4	2	2	2	2	-	-	-	-	2	1	2	2	2	2
		CO1	Apply	y know	ledge o	f Interf	ference	concep	ts of li	ght(L3))					
		CO2	Apply knowledge of Interference concepts of light(L3)* repeated Infer the applications of Lasers(L2)													
		CO3														
	Lab	CO4 Define Acoustics of buildings and NDT applications (L1)														
	Applied Physics	CO5	Defin	e mate	rial pro	perties	and n	uclear p	ower g	generat	tion(L1)				
BS02L	hys		1		T	1			1	ı	ı	T			1	
BS	D P		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	plie	CO1	3	3	3	2	2	-	-	-	-	-	-	-	-	-
	Ар	CO2	2	2	2	3	2	-	-	-	-	-	-	-	-	-
		CO3	3	2	2	2	3	-	-	-	-	-	-	-	-	-
		CO4	2	2	3	3	3	-	-	-	-	-	-	-	-	-
		CO5	3	2	3	2	2	-	-	-	-	-	-	-	-	-
		CO1	Know	the so	urces	features	s and n	rinciple	s of In	dian C	onstitut	ion				
		CO2										ministrat	ion			
	<u>i</u>	CO3						istration				ut	2011			
	Ind	CO4						levelopi				nts.				
1	ution of India	CO5						ctioning								
MC01	ion		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Σ		CO1	3	-	3	-	-	3	-	2	3	-	3	2	-	-
	Constit	CO2	2	-	2	-	-	2	-	2	2	-	3	2	-	-
	S	CO3	3	-	3	-	-	2	-	2	2	-	3	3	-	-
		CO4	2	-	3	-	-	2	-	2	2	-	3	3	-	-
		CO5	3	-	1	-	-	3	-	3	3	-	3	2	-	-
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		CO1	(EVA	LUAT	E)							•			algorith	
		CO2	and b		d interp							Gauss Sei			wton's fo LVE ,	orward
	- S	CO3	analyt		_				_			•		•	ons to its ons (SOL\	
33	atic	CO4	Find o	r comp	ute the	Fourie	r series	of perio	odic sig	nals (SC	OLVE ,A	PPLY, FIN	ID, ANAL	YSE)		
BS03	Mathematics	CO5					_	expres , APPL			orwards	and inv	erse Fou	rier trans	form to I	range
	2		DO1	DO2	DO2	DO4	DOE	DOG	DO7	DOS	DOO	DO10	DO11	DO12	DCO1	DCO2
		601	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
		CO1	3	2	-	-	-	-	-	-	-	-	-	1		-
		CO2	3	2	-	-	-	-	-	-	-	-	-	1	-	-
		CO3			-	-	-	-	-	-	-	-	-	1		-
		CO4	3	2	-	-	-	-	-	-	-	-	-	1	-	-
		CO5	3		-	-	-	-	-	-	-	-	-	1	-	-
			1 1 1										<u> </u>			(T. 6)
		CO1													ications ((L6)
		CO2										on, Gaus				
		CO3										gradient			ence (L5)	
	₹	CO4										g vector				
	ics	CO5	identi	fy the s	olution	metho	ds for p	artial d	itterent	ial equ	ation th	at mode	I physica	ll process	es (L3)	
BS04	Mathematics –III		1											1 2 2 4 2		
В	her	604	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	1at	CO1	3	2	-	-	-	-	-	-	-	-	-	1	-	-
	2	CO2	3	2	-	-	-	-	-	-	-	-	-	1	-	-
		CO3	3	2	-	-	-	-	-	-	-	-	-	1	-	-
		CO4	3	2	-	-	-	-	-	-	-	-	-	1	-	-
		CO5	3	2	-	-	-	-	-	-	-	-	-	1		-
		CO1	_	_	reparati olymers	•	perties	and app	lication	s of the	ermopla	stics, the	ermosetti	ngs, elas	tomers a	nd
		CO2	know	the imp	ortance	e of var	ious ma	aterials	and the	ir uses	in the c	onstructi	on of bat	teries an	d fuel cel	lls.
	7	CO3	know	the app	olication	ns of ad	lvanced	materi	als in v	arious i	ndustri	es				
ស	Applied Chemistry	CO4		y the pr chemis		of sup	ramole	cular ch	emistr	y in the	applica	itions of	molecula	ar machir	nes, need	of
BS05	つに	CO5	explai	n the p	rinciple	s of spe	ectrome	etry suc	h as UV	, IR, an	d NMR					
	liec			,			_									
	ddγ		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	4	CO1	2	2	-	-	-	-	3	-	-	-	-	-	-	-
		CO2	2	2	-	-	-	-	2	-	-	-	-	-	-	-
		CO3	2	2					2							



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		CO4	2	2	_	_	_	_	3	I _	_	I _	_	_	_	_
		CO5	2	2	_	_	-	_	3	-	_	_	-	_	-	_
		CO1			rstand t	he conc	rents of	electric		l iits and	verify 1	theorems	in DC c	ircuits		
		CO2						of single				theorems	швес	neurs.		
	₽0	CO3						plicatio								
	ri	CO4						of single								
	nee	CO5						nd appl								
	Basic Electrical Engineering	CO3	. Able	to unu	erstariu	the wo	JI KIIIB a	пи аррі	ication	S OI AC	macmi	ies.				
ES03	三		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
ES	rica	CO1	3	2	-	-	-	-	-	-	-	-	-	1	-	F3U2
	ect	CO2	3	2	_	_		_		_	_	_				
	CEI	CO3	3	_	_	_	-	_		_	_	_		1		
	asi	CO4	3	2	_	_	-		-		_	_		-		-
	8	CO5	3		_	_		-			-	_	-		-	-
		CO3	3	2	_	_	-	-	_	-	-	_	-	1	-	-
		CO1		l .	oriene :	- noroti	no on 1	- incom 15:	to.		-	_		1		
		CO1	_			•		inear lis		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ov.=1	ing some	lov data	atmr at	NG.	
		CO2										ing comp		structure	3.	
		CO3								-		structure		مممد عامد		
	res	CO4										trees, bi	nary sea	rcn trees	•	
-	ct	CO5 Identify appropriate data structure algorithms for graphs														
ES04	tr		DO1	DO2	DO2	DO 4	DOE	DOC	DO7	DO0	D00	DO10	DO11	DO13	DC 04	DCO2
Ш	a S	CO5 Identify appropriate data structure algorithms for graphs PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PSO1 PSO2														
	Dat	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PS01 PS02 CO1 2 2 1 - - - - - - 1 1 CO2 1 2 2 - - - - - - 2 1														
	_	CO1 2 2 1 1 1 CO2 1 2 2 2 1														
		CO3	2	-	2	2	-	-	-	-	-	-	-	-	2	1
				-	2	1	-	-	-	-	-	-	-	-	1	1
		CO5	Λ - 1-	2	1	2	in root	- Lord -	nnliaati	one (T	2)	_	-	-	1	1
		CO1				_		world a				(I 2)				
		CO2						ets in r			cations	. (L3)				
	orkshop	CO3						applicat			(1.2)					
	rksl	CO4						ric circu	iit conn	ections	. (L3)					
ب		CO5	Demo	nstrate	solderi	ng and	brazing	3. (LZ)								
ES05L) gr		PO1	DO2	DO2	DO 4	DOE	DOC	DO7	DO0	DOO	DO10	DO11	DO12	DCO1	DCO2
Ľ	erii	CO1		PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	Engineering W	CO1	2	2	-	-	-	-	-	-	-	-	-	1 1	-	-
	gu:	CO2	2	2		-	-	-			_	_	 	1	-	-
		CO3	2	2					-	<u> </u>	-	-	-	1	-	-
		CO5	2	2	-	-	-	-	-	-	-	-	 	1	-	-
 		CO1					netal in	ne proce	ent in A	ifferent	colutio	ns (L4 &	. I 3	_ <u> </u>		
	Lab	CO2						of water		mereill	solutio	115 (L4 &	LS			
	stry	CO3				• •				N using	diffor	nt inctru	ımantati	on techn	iques (L3	1
		CUS	10 000	CHIIIIE			PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	emi		DO1	DO3	DO⊃	1 10/1/1			/	10						
BS051	Chemi	CO1	PO1	PO2	PO3	PO4						+				
BSC	lied Chemi	CO1	-	3	2	-	-	-	-	1	2	-	-	2	-	-
BSC	Applied Chemistry Lab	CO1 CO2 CO3										+				



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		CO1	A 1. 1 .	40.001			1_ 1	1 . '	1 .	4min s 1 1	1		41			
		CO1										network	theorem	ıS.		
	ð	CO2				_						itations.				
	Le	CO3	Able t	o analy	ze the p	perform	nance c	haracte	ristics c	of DC m	achines	5				
	ing	CO4	Able t	o meas	ure and	calcul	ate the	perforn	nance c	haracte	eristics	of 1-phas	se Transf	ormer		
	ē	CO5						haracte				•				
	ine		71010	o arrary	30 1110 1	20110111	iarree er	i ai accc	1136163 6	71 710 1111	acimics	<u>'•</u>				
ES03L	Basic Electrical Engineering Lab		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
ES	g	CO1	3	2	_	_	-	_	_	_	-	_	_	1	_	_
	tri	CO2	3	2	_	_	-	-	-	_	_	_	_	_	_	_
	lec	CO3	3		_	_		-	_	_	_			1		
	ic E			-	-	-	-	-	_		-	-	-	1	-	-
	asi	CO4	3	2	-	-	-	-	-	-	-	-	-	-	-	-
	В	CO5	3	-	-	-	-	-	-	-	-	-	-	1	-	-
		CO1	_					the bas								
		CO2 Design and analyze the time efficiency of the data structure.														
	_	CO3 Design and analyzethe Space efficiency of the data structure in the memory.														·
	ab-	CO4 Identifies the appropriate data structure for given problem.														
	es l	CO5 Compare and Contrast various data structures and design techniques in the area of Performance.														
1	tur															
ES04L	nc		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Ш	Str	CO1	2	2	1	1	-	-	-	-	-	-	-	-	-	-
	ıta	CO2	2	2	1	1			_			_			_	
	Dê						-	-	-	-	-	-	-	-		-
		CO3	2	2	1	1	-	-	-	-	-	-	-	-	-	-
		CO4	2	2	1	1	-	-	-	-	-	-	-	1	-	-
		CO5	2	2	1	1	<u> </u>	-	-		<u> </u>		<u> </u>	1		-
		CO1										and usef	ul points	and para	aphrase s	hort
	_							egies an				ND/TE 1: 1	*.1	1 .	1 . 1	
	English Lab-II	CO2		formal ents (L3		red pres	sentatio	ns on a	cademic	e topics	using I	PPT slide	s with re	elevant gi	raphical	
	La	CO2			,	disauss	ionsus	ing ann	consist		ntions	and langu	iago stra	togios /I	21	
	lish	CO3										and langu	iage stra	tegies (L	3)	
77	ng	CO4						seek in					_,			
HSM02	e e	CO5	collab	orate w	ith a pa	artner t	o make	presen	tations	and Pr	oject R	eports (L	2)			
1SI	ıtiv			ı	I	1	1	1	1	1	1	1	1		1	T
	ice		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	Communicativ	CO1	-	-	-	-	-	-	-	-	2	3	-	1	-	-
	E I	CO2	-	-	-	-	-	-	-	-	2	3	-	1	-	-
	၂ ၁	CO3	-	-	-	-	-	-	-	-	2	3	-	1	-	-
		CO4	_	-		-	-	-			2	3	-	1	-	-
		CO5	-	-	-	-	-	-	-	-	2	3	-	1	-	-
	· ·															
		CO1				-		o syste								
		CO2	Unde	rstand 1	the nat	ural res	ources	and the	ir impo	rtance						
7	1	CO3	Able t	to learn	the Bio	diversi							apply co	onservat	ion pract	ices.
9	S															
MC0	ES	CO4		to learn		rious at	tribute	s of the	polluti	on and	their in	npacts				
MC02	ES	CO4 CO5	Able t	to learn	the va			s of the Il and ui				npacts				
MCO	ES		Able t		the va							npacts				



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			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
		CO1	3	-	3	-	2	-	3	-	3	-	3	2	-	-
		CO2	2	-	2		2	_	3	_	2	_	3	2	_	_
		CO3	3	-	3	_	2	_	3	_	2	_	3	3	_	_
		CO4	2	_	3	_	2	_	3	_	2	_	3	3	_	_
		CO5	3	-	1	-	3	_	3	_	3	_	3	2	_	-
		CO3	3		Т.		3		1	_		_	J		_	_
									II-I							
		CO1		•		•		plex fu	nction i	n order	to dete	rmine wh	nether a g	given cor	ntinuous	
	ods			ion is ar												
	eth	CO2										gineering	problem	is and ma	ake use of	f
	Σ			hy resid									_			
	tica	CO3				ious pro	obabilit	y distril	outions	and de	sign the	e compoi	nents of	a classica	al hypoth	esis
	ıtisı			Apply&0												
9	Ste	CO4									_	pling tes				
BS06	Complex Variables and Statistical Methods	CO5	Interp	ret the	associa	ation of	charac	teristics	and th	rough (correlat	ion and r	egressio	n tools.(Analyze)	
"	es !		Ι_	Ι	Ι_	T _	Ι_	I _	Ι_	Ι_	1 _	Γ_	Ι_	Τ_	T	
	iab		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	Var	CO1	-	2	-	-	-	-	-	-	-	-	-	-	-	-
	ex	CO2	-	2	-	-	-	-	-	-	-	-	-	-	-	-
	mp	CO3	2	1	-	-	-	-	-	-	-	-	-	-	-	-
	ဒ	CO4	1	1	-	-	-	-	-	-	-	-	-	-	-	-
		CO5	2	3	-	-	-	-	-	-	-	-	-	-	-	-
		CO1										ons (Unde	erstand le	evel)		
	uits	CO2		onstrate												
	and Circuits	CO3		in the w							and lev	el)				
	ρ	CO4		the art												
	an	CO5		the equ	uivalen	t small	signal lo	ow freq	uency r	nodels	of BJTs	and FETS	in ampl	ifier ana	lysis (Ana	alyze
EC01	Devices		level)	1	ı	1		1	1	1	1	I	1		1	1
H	evi		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	C D	CO1	-	3	-	-	-	-	-	-	-	-	-	-	-	2
	tronic	CO2	2	2	-	-	-	-	-	-	-	-	-	-	-	2
	ctr	CO3	-	3	-	-	-	-	-	-	-	-	-	-	-	3
	Elec	CO4	-	3	-	-	-	-	-	-	-	-	-	-	-	2
		CO5	2	-	-	-	-	-	-	-	-	-	-	-	-	2
		CO1									ignals n	nathemat	ically an	d able to	calculate	•
			_	lex Fou												
	SI	CO2													and App	
	ten								me sigi	nals to	discrete	-time sig	nal and r	econstru	ct the orig	ginal
	and Systems	055		l from s									r . —.			
EC02) pt	CO3		•								•			erstand t	
Ĕ	s ar			•	olution	i, correl	iation, e	energy s	pectra	aensit	y and p	ower spe	ectral dei	nsity. (Re	member	,
	nal	664		rstand)	1			-1			1				1 . 1	
	Signals	CO4		•				•		us time	signals	and syst	ems and	underst	and the	
		665		pt of re						1	.1					•
		CO5							time sig	gnals an	id syste	ms, and i	understa	nd the co	oncept of	Ť
	i	1	region	า of con	vergen	ce. (Co	mpute)									



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			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
		CO1	3	3	2	-	-	-	-	-	-	-	-	-	-	3
		CO2	3	3	2	-	-	-	-	-	-	-	-	-	-	3
		CO3	3	2	3	-	-	-	-	-	-	-	-	-	-	3
		CO4	3	2	2	-	-	-	-	-	-	-	-	-	-	3
	•	CO5	3	2	2	-	-	-	-	-	-	-	-	-	-	3
		CO1	Distin	guish t	he anal	og and	digital s	systems	, apply	positio	nal nota	ations, nu	mber sy	stems, co	mputer o	codes in
	_			l systen												
	Digital Circuits and Logic Design	CO2					gebra tl	neorems	s, simpl	ify and	design	logic circ	cuits. (U	nderstand	d, Apply,	
	Pe	602		ze and		<i>,</i>		!		ا . ام م ماا		la i .a a & i a .a .	-1 -::			
	gic	CO3					_		_			uate, and		s using e	ncoders,	
_	d Lc	CO4								-	-	derstand,		nalyze)		
EC03	an	CO5		n and ar									дриу, г	anaryze)		
ш	lits		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	irc	CO1	3	2	2	-	-	-	-	-	-	1	-	-	-	3
	al C	CO2	3	2	2	-	-	-	_	-	-	1	_	-	_	3
	igit	CO3	3	2	2	-	-	_	_	-	_	1	_	-	_	3
	۵	CO4	3	2	2	-	-	-	-	-	-	1	_	-	_	3
		CO5	3	2	2	-	-	-	-	-	-	1	-	-	-	3
		CO1	Apply	the me	esh and	node m	nethods	to analy	yze the	behavio	or of ele	ectrical ci	ircuits (F	RLC circ	uits)unde	r
			steady	y state c	onditio	ns. (Ap	ply)									
	S	CO2											rameters	S(Z, Y, A)	ABCD, h	& g)
	Li.											erstand)				
	ou	CO3			ransien	it behav	vior of F	RLC circ	uits in (detail us	sing tim	ne domai	n and s-d	domain r	nethods.	
	issi	CO4	(Analy		i+h +ho	gonora	Loharae	torictic	c of tra	nemicei	on line	hy annly	uing the	hacic cire	ruit laws	and
ဖ	and Transmission Lines	C04		pts. (Ur			Cliarac	lensuc	S OI LI a	1151111551	on lines	s by apply	ying the	Dasic Circ	cuit laws	anu
ES06	Trail	CO5					wave i	phenon	nenon i	s forme	ed on tr	ansmissi	on lines	and be a	ble solve	the
	. pu			ems of t		_										
	sal		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	Networks	CO1	3	-	-	-	-	-	-	-	-	-	-	-	-	2
	ξĶ	CO2	3	2	-	-	-	-	-	-	-	-	-	-	-	2
	ž	CO3	3	2	1	-	-	-	_	-	-	-		-		3
		CO4	3	3	-							-	_	-	-	2
		CO5	3	2	-	-	-	-	-	-	-	-	-	-	-	2
		CO1		-	1.0		onstruct	s with a	view o	of using	them i	n probler	n solving	g.(Remer	nber,	
	00	000		rstand,			1	.1 11		1	<u> </u>	11 .	. /**	1	A 1	
	nin.	CO2		ze and			d use py	ython lis	sts in ex	kamples	s of pro	blem sol	vıng.(Un	derstand	, Apply,	
	Ē	CO3					onc in m	odular	nrogra	mmina	ucinan	wthon (/	Apply Ar	nalyze v	aluate, ar	nd
ES07	ogra	COS	create		tility Oi	Turicul	וו ווו כווע	louulai	progra	ıııııııg	using p	ytiioii. (<i>i</i>	Appiy, Ai	iaiyze, vo	iluate, ai	iu
ES	Prc	CO4		•	ncepts o	of Obie	ct Orier	nted Pro	ogramn	ning to	solve th	e real-tir	ne probl	ems. (Ur	nderstand	1.
	Python Programming			, Analyz	•	. Jaje	5.101		. o. w				p. 001	5. (01		···,
		CO5				compor	nents w	ith Rası	oberry	Pi using	Pythor	n APIs. (U	Indersta	nd. Apply	, Analyz	e and
	ا ح	COS	IIIICIII	acc man	awaic	compoi			,		, . ,			- / - - -		- cc.
	P	CO3	create		awarc	COMPO					, . ,			- / - -	,, - ,	J 4116
	Py	CO3			avvare	compor	101110 11							- / - -		



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			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
		CO1	3	2	1	1 04	3					1010	. 011	2	3	1
		CO2	3	2		_	3	-	-		-	-	-		3	
				2	1	-		-	-	-	-	-	-	2		1
		CO3	3		1	-	3	-	-	-	-	-	-	2	3	1
		CO4	3	2	3	-	3	-	2	-	-	-	-	2	3	1
		CO5	3	2	3	3	3	-	2	-	-	-	-	2	3	1
		1														
		CO1								lization						
		CO2										e traditio	ns.			
		CO3								odern Ir	ndia					
		CO4						fine arts								
		CO5	To kn	ow the	contrib	oution o	of scient	ists of	differen	it eras.						
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
33	×	CO1	-	1	-	-	-	_	_	2	2	_	-	-	-	-
MC03	EITK								2							
_		CO2	-	-	-	-	-	-	1	2	-	-	-	-	-	-
		CO3	-	1	-	-	-	-	2	1	-	-	-	-	-	-
		CO4	-	-	-	-	-	-	3	3	3	-	-	-	-	-
		CO5	-	-	-	-	-	-	3	3	3	-	-	-	-	-
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		ı	1					I			I	I	I .			
		CO1							•			RO.(Und				
		CO1 CO2	Gener	ate sine	e, squar	e and tr	iangula		•			RO.(Und				
		CO2	Gener Using	ate sine	e, squar on gene	e and tr	riangula Apply)	r wave	forms v	vith req	uired fr	equency	and amp	litude		
	Lab		Gener Using Analy	rate sine function ze the o	e, squar on gene	e and tr	riangula Apply)	r wave	forms v	vith req	uired fr		and amp	litude		
	uits Lab	CO2	Gener Using Analy etc. (A	rate sine function ze the of Apply)	e, squar on gene characte	e and tr rator. (A	riangula Apply) of diffe	r wave	forms v	vith req	uired fr	equency s diodes,	and amp transisto	litude ors		
	Circuits Lab	CO2	Gener Using Analy etc. (A	rate sine function ze the of Apply) the dic	e, squar on gene characte	e and trator. (A	riangula Apply) of diffe	rent ele	forms v	vith req	uired fr	equency	and amp transisto	litude ors		
	nd Circuits Lab	CO2 CO3 CO4	Gener Using Analy etc. (A Apply suppli	rate sine function ze the capply) the diction and	e, squar on gene characte ode wor amplifi	re and tr rator. (A eristics king pr ers etc.	riangula Apply) of diffe rinciples (Apply	r wave	forms v	vith requires devices ple circ	uired fr	equency s diodes, e rectifier	and amp transistors, power	litude ors		
011	es and Circuits Lab	CO2	Gener Using Analy etc. (A Apply suppli Desig	rate sine function (ze the can (Apply) (the dical (ses and can (n the B.	e, squar on gene characte ode wor amplifi	re and tr rator. (A eristics king pr ers etc.	riangula Apply) of diffe rinciples (Apply	r wave	forms v	vith requires devices ple circ	uired fr	equency s diodes,	and amp transistors, power	litude ors		
EC01L		CO2 CO3 CO4	Gener Using Analy etc. (A Apply suppli	rate sine function (ze the can (Apply) (the dical (ses and can (n the B.	e, squar on gene characte ode wor amplifi	re and tr rator. (A eristics king pr ers etc.	riangula Apply) of diffe rinciples (Apply	r wave	forms v	vith requires devices ple circ	uired fr	equency s diodes, e rectifier	and amp transistors, power	litude ors		
EC01L		CO2 CO3 CO4	Gener Using Analy etc. (A Apply suppli Desig (Appl	rate sine function ze the camply) the diction the B. y)	e, squar on gene characte ode wor amplifi JT amp	e and trator. (A cristics whing prers etc. lifter ci	riangula Apply) of diffe rinciples (Apply rcuit fo	rent eless to dessort the gi	forms veronic	devices ple circerating	uired fr s such a uits like	equency as diodes, e rectifier ons and s	and amp transistors, power	litude ors		
EC01L		CO2 CO3 CO4 CO5	Gener Using Analy etc. (A Apply suppli Desig (Appl	rate sine function (ze the of Apply) the dio fies and in the B. y)	e, squar on gene characte ode wor amplifi	re and tr rator. (A eristics king pr ers etc.	riangula Apply) of diffe rinciples (Apply	r wave	ctronic ign sim	vith requires devices ple circ	uired fr	equency s diodes, e rectifier	and amp transistors, power	litude ors	PSO1	PSO2
EC01L		CO2 CO3 CO4 CO5 CO1	Gener Using Analy etc. (A Apply suppli Desig (Appl	rate sine function (ze the continue) the diction the Bay)	e, squar on gene characte ode wor amplifi JT amp	e and trator. (A cristics whing prers etc. lifier ci	riangula Apply) of diffe rinciples (Apply rcuit fo	rent eles to describer the gi	ctronic gn sim	devices ple circ erating o	uired fr s such a uits like	equency as diodes, e rectifier ons and s	transistors, power pecification PO11	litude ors	-	2
EC01L	Electronic Devices and Circuits Lab	CO2 CO3 CO4 CO5 CO1 CO2	Gener Using Analy etc. (A Apply suppli Desig (Appl	rate sine function ze the contact Apply) the diction the B. y)	e, squar on gene characte ode wor amplifi JT amp	e and trator. (A cristics whing prers etc. lifter ci	riangula Apply) of diffe rinciples (Apply rcuit fo	rent eless to dessort the gi	ctronic ign sim	devices ple circerating	uired fr s such a uits like	equency as diodes, e rectifier ons and s	and amp transistors, power	litude ors	PSO1	2
EC01L		CO2 CO3 CO4 CO5 CO1 CO2 CO3	Gener Using Analy etc. (A Apply suppli Desig (Appl	rate sine function and the Bay) PO2 2 2 2	e, squar on gene characte ode wor amplifi JT amp	e and trator. (A cristics whing prers etc. lifier ci	riangula Apply) of diffe rinciples (Apply rcuit fo	rent eles to describer the gi	ctronic gn sim	devices ple circ erating o	uired fr s such a uits like	equency as diodes, e rectifier ons and s	transistors, power pecification PO11	litude ors	-	2 2 2
EC01L		CO2 CO3 CO4 CO5 CO1 CO2 CO3 CO4	Gener Using Analy etc. (A Apply suppli Desig (Appl	rate sine function from the diction of the B. The second of the second of the B. The second of the B. The second of the B. The second of the B. The second of the B. The second of the B. The second of the B. The second of the s	e, squar on gene characte ode wor amplifi JT amp	e and trator. (A cristics white press etc. lifier ci	riangula Apply) of diffe rinciples (Apply reuit fo	rent eles to des: r the gi	ctronic ign sim	devices ple circ erating of	uired fr s such a uits like	equency s diodes, e rectifier ons and s	transistors, power pecification -	ors PO12 -	-	2 2 2 3
EC01L		CO2 CO3 CO4 CO5 CO1 CO2 CO3	Gener Using Analy etc. (A Apply suppli Desig (Appl	rate sine function and the Bay) PO2 2 2 2	e, squar on gene characte ode wor amplifi JT amp	e and trator. (A cristics white press etc. lifier ci	riangula Apply) of diffe rinciples (Apply reuit fo	rent eless to dess	ctronic gn sim ven ope	devices ple circ erating of	uired fr s such a uits like	equency s diodes, e rectifier ons and s	transistors, power pecification -	ors PO12 -	-	2 2 2
EC01L		CO2 CO3 CO4 CO5 CO1 CO2 CO3 CO4	Gener Using Analy etc. (A Apply suppli Desig (Appl	rate sine function from the diction of the B. The second of the B. The second of the B. The second of the B. The second of the B. The second of the B. The second of the B. The second of the B. The second of the B. The second of the second o	e, squar on gene characte ode wor amplifi JT amp	e and trator. (A cristics white press etc. lifier ci	riangula Apply) of diffe rinciples (Apply reuit fo	rent eles to des:) r the gi	ctronic gn sim	devices ple circ erating of	s such a uits like condition	equency s diodes, e rectifier ons and s PO10	ransistors, power pecification	PO12	- - -	2 2 2 3
EC01L		CO2 CO3 CO4 CO5 CO1 CO2 CO3 CO4	Gener Using Analy etc. (A Apply suppli Desig (Appl PO1 3 3 3 3	rate sine function function for the diction of the B. (a) PO2 2 2 2 3 3 3	e, squar on gene characte ode wor amplifi JT amp PO3	e and trator. (A eristics whing press etc. lifter ci	riangula Apply) of diffe inciples (Apply rcuit fo	rent eles to des:) r the gi	ctronic gn sim	devices ple circ erating of	s such a uits like condition	equency s diodes, e rectifier ons and s	ransistors, power pecification	PO12	- - -	2 2 2 3
EC0	Electronic Devices	CO2 CO3 CO4 CO5 CO1 CO2 CO3 CO4 CO5	Gener Using Analy etc. (A Apply suppli Desig (Appl PO1 3 3 3 3	rate sine function function from the diction of the B. The second of the B. The second of the B. The second of the B. The second of the B. The second of the B. The second of the B. The second of the B. The second of the B. The second of the	e, squar on gene characte ode wor amplifi JT amp PO3 valuate	e and trator. (A cristics whing prers etc. lifter ci	riangula Apply) of diffe rinciples (Apply rcuit fo	rent eless to dess	roms vectronic gn simulation open simulation o	devices ple circ erating of	s such a uits like condition	equency s diodes, e rectifier ons and s	ransistors, power pecification	PO12	- - -	2 2 2 3
EC0	Lab Electronic Devices	CO2 CO3 CO4 CO5 CO1 CO2 CO3 CO4 CO5	Gener Using Analy etc. (A Apply suppli Desig (Appl PO1 3 3 3 3 3 Create	rate sine function and the Bay property of the diction of the Bay property of the diction of the Bay property of the Bay property of the diction of the Bay property o	e, squar on gene characte ode wor amplifi JT amp PO3 valuate rier ana	e and trator. (A cristics white presents of the cristics of the critical cristics of the critical cristics of the critical cri	riangula Apply) of diffe inciples (Apply reuit fo	rent eles to des: rent eles to des: r the gi PO6 MATLA	ctronic gn sim ven ope	PO8	uired fr s such a uits like conditio	equency s diodes, e rectifier ons and s PO10	ransistors, power pecification	PO12	- - -	2 2 2 3
EC02L EC01L	Electronic Devices	CO2 CO3 CO4 CO5 CO1 CO2 CO3 CO4 CO5 CO1 CO2 CO3	Gener Using Analy etc. (A Apply suppli Desig (Appl PO1 3 3 3 3 3 Create Exam	rate sine function function from the Grand sine for	e, squar on gene characte ode wor amplifi JT amp PO3 valuate ormulat	e and trator. (Acristics of king press etc.) lifier ci PO4 signals alysis are analogous	riangula Apply) of differinciples (Apply) rcuit for service se	PO6	reforms vectronic ign simulations ven open simulati	devices ple circ erating of	uired fr s such a uits like conditio	equency s diodes, e rectifier ons and s PO10	ransistors, power pecification	PO12	- - -	2 2 2 3
EC0	Lab Electronic Devices	CO2 CO3 CO4 CO5 CO1 CO2 CO3 CO4 CO5 CO1 CO2	Gener Using Analy etc. (A Apply suppli Desig (Appl PO1 3 3 3 3 3 Create Exam Asses Invest	rate sine function and for the Barbara sine function and for the Barbara sine function and function and function and for the Barbara sine four signate distance functions and for the Barbara sine for the Barbara sine for the Barbara sine function and for the Barbara sine function and function and for the Barbara sine function and	e, squar on gene characte ode wor amplifi JT amp PO3 valuate rier ana ormulat igital si	e and trator. (Acristics of king press etc. lifier ci	riangula Apply) of diffe rinciples (Apply reuit fo	rent eles to des: rent eles to des: r the gi PO6 MATLA	reforms vectoric depth of the section of the sectio	PO8	uired fr s such a uits like conditio	equency s diodes, e rectifier ons and s PO10	ransistors, power pecification	PO12	- - -	2 2 2 3



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			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
		CO1	3	-	-	-	3	-		-	-	2	-	-	3	2
		CO2	3	-	-	2	-	-	1	-	-	-	-	-	3	1
		CO3	3	-	2	-	-	-		-	-	-	1	-	3	2
		CO4	3	-	-	2	-	-		-	-	-	-	2	3	1
		CO5	3	-	2	2	-	-		-	-	-	=	-	2	2
		CO1	Idont	ify the	hosio r	xython.	constr	lote wi	th o vi	ory of n	icina th	em in p	roblom (olvina		
		CO2										of proble				
	qı													ıg		
	s Le	CO3										ing pyth		1.1		
	Jing	CO4										ve the re		problen	ns.	
	mm	CO5	Interf	ace hai	dware	compo	onents	with K	aspber	ry Pi us	sing Py	thon AF	'1S.			
ES07L	grai		I	I		I	ı	ī	I	ı	I	ı	ı	ı	ı	
ES	rog		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	п	CO1	2	2	3	-	-	-	-	-	-	-	-	1	2	2
	Python Programming Lab	CO2	2	2	3	-	-	-	-	-	-	-	-	1	2	2
	Py	CO3	2	2	3	-	-	-	-	-	-	-	-	1	2	2
		CO4	2	2	3	2	-	-	-	-	-	-	-	1	2	3
		CO5	-	-	3	-	3	-	-	-	-	-	-	-	-	-
									II-II							
	ιο.	CO1	Mathe	ematica	lly mod	lel the r	andom	phenon	nena an	d solve	simple	probabil	istic prol	blems.(U	nderstan	d,
	ses		Apply										_			
	Ses	CO2							es and c	ompute	statisti	cal avera	ges of th	ese rand	om	
	Pro			oles.(Ar												
	tic	CO3					•						•		expecta	tion,
	nas											Analyse, <i>i</i>				
	jo:	CO4										omains.(
BS07	d St	CO5								to Cons	truct ar	nd analys	se the ma	athemati	cal mode	elling of
BS	ariables and Stochastic Processes		noise	sources	.(Defin	e, Anal	yse, Apı	oly, Con	npute)							
	les		201	200	200	504	505	200	207		500	2010	2011	2012	2004	200
	iab	201	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
		CO1	3	2	2	-	-	-	-	-	-	1	-	-	-	3
	Random V	CO2	3	2	3	-	-	-	-	-	-	1	-	-	-	3
	ndc	CO3	3	2	3	-	-	-	-	-	-	1	-	-	-	3
	Rai	CO4	3	2	2	-	-	-	-	-	-	1	-	-	-	3
		CO5	3	2	2		-	-	-	- C'1	-	1 .	-		-	. 3
							low pa	ss and l	ngh pa	ss filter	ing and	design c	lippers a	nd clamp	ers for v	arious
		001	applic	cations(Analyz	e)										
	its	CO1		1 .	1		11.01		., .	Dir	13.50	APPE	1110	•		
4	Analog Circuits	CO2		and A fiers.(A				er circu	iits usir	ig BJT	and MC	JSFET at	t high fre	quencies	and mul	tistage
EC04	ğ	CO3						(in amı	olifiers	and ana	alvsis of	differen	t tynes o	f feedha	ck	
	alo			fiers.(Fa		•		۵111		a aiit	, 515 01	JC. C.	, pcs 0	ccaba		
	An	CO4		ze and [of oscil	lator ci	rcuits (Analyze	.)				
		CO5										alysis of	single tu	ned		
				s.(Unde			•	ci dilip	iiicis a	a peri	orni ali	ary 515 OI	onigic tu	cu		
			circuit	.5.(01100	. i stariu	, Allaiy	,									



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			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
		CO1	2	3	-	-	-	-	-	-	-	-	-	-	2	2
		CO2	2	3	2	-	-	-	-	-	-	-	-	-	2	2
		CO3	2	3	3	-	-	-	-	-	-	-	-	-	2	3
		CO4	2	2	-	-	-	-	-	-	-	-	-	-	2	3
		CO5	1	2	-	-	-	-	_	_	_	-	-	-	2	2
		CO1	Use tl	he conc	epts of	vectors	and sp	ace coo	rdinate	s to solv	ve the fi	ındamen	tal probl	ems of st	atic elect	ric
	/es		fields		•		1						1			
	۷a۱	CO2	Apply	y princij	oles of	static el	ectric f	ield to t	ındersta	and the	behavio	our of die	electrics a	and cond	uctors	
	γp	CO3	Unde	rstand t	he prin	ciples c	of stead	y magn	etic fiel	d						
	an	CO4	Solve	the Ma	xwell's	equatio	ons of T	ime Va	rying fie	elds and	dobtain	the wav	e pheno	menon i	n various	media.
	spi	CO5										tion phe				
EC05	Electromagnetic Fields and Waves					<u></u>			-			· ·				
Ш	tic		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	gne	CO1	3	2	-	-	-	-	2	_	_	-	-	-	3	2
	ma	CO2	3	2	-	-	-	-	2	-	-	-	-	-	3	2
	tro	CO3	3	2	-	-	-	-	2	-	-	-	-	-	3	2
	leci	CO4	3	2	-	-	-	-	2	-	-	-	-	-	3	2
	В	CO5	3	1	-	-	-	_	2	_	-	-	-	_	3	1
		CO5 3 1 2 3 1 CO1 Understanding the structural description and electrical characteristics of various digital logic families.														
	ם	CO2		ing bas				_						8 8	,	
	7	CO3		mentin					,							
	ith	CO4		mentin					ng ICs a	nd VHI)I code					
	× (CO5		ling of S							or code					
9	Digital System Design with VHDL		11.000	6 01 0	Jeque		410 451	1.6 1.63 a								
EC06	De		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
_	ma	CO1	-	2	-	3	2	-	-	-	-	-	-	-	-	3
	ystı	CO2	2	-	_	3	3	-	_	_	_	_	_	_	2	-
	ıl S	CO3	2	_	_	3	3	_	_	_	_	_	_	2	2	_
	gita	CO4	3	_	_	3	3	-	_	_	_	_	_	-	3	_
	οį	CO5	3	_	_	3	3	_	_	_	_	_	_	_	3	_
		CO1								modul	ation so				rious fund	
				s of AN						ouul	ation 50	iiciiics ai	ia Onder	ouna vai	Tous full	cionai
		CO2								lulation	schem	es and Co	ompare t	he perfo	mance of	f AM
		002		nd PM		_						os ana e	ompare t	ne perro		1 1 11/1,
		CO3										Determ	ine the p	erforma	nce of lin	e
				in term	_											
7	၁	CO4						•				n scheme	e (Evalua	ting)		
EC07	ADC	CO5			•										nission o	f digital
	•										_	alyzing)				. 3.5
			- - -			,					- 1	,				
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
		CO1	3	2	2	-	-	-	1	-	-	-	-	-	-	-
		CO2	3	2	1	_	_	-	1	-	-	_	_	_	_	_
		CO3	3	2	2	_	_	_	1	_	_	_	_	_	_	 _
		555					<u> </u>			l	l		l		<u> </u>	



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		CO4	3	2	2	-	=	-	1	-	-	-	-	=	-	-
		CO5	3	2	1	-	-	-	1	-	-	ı	ı	-	-	-
		CO1	electr	ical sys	tems, c	oncepts	of feed		Constru						echanica nd Apply	
		CO2	Devel		acquain	tance in				respon	se in tir	ne-doma	in, in ter	ms of va	rious	
		CO3	•				s of abs	olute st	ability a	and rela	tive sta	bility by	different	approac	hes.	
	tems	CO4	Devel		acquain	tance in									of variou	S
ES08	Control Systems	CO5	Desig per gi conce	n the coven spe pts of s	ontrol sy ecificati tate var	ystems ons. De iable ar	etermine nalysis.	e the co	ntrollab	oility an	d obser	vability (of the co	ntrol sys	ain analy tem using	g the
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
		CO1	3	2	-	-	-	-	-	-	-	-	-	-	-	-
		CO2	-	2	-	-	-	-	-	-	-	-	-	-	-	-
		CO3	3	-	3	-	-	-	-	-	-	-	-	2	-	-
		CO4 CO5	3	-	3	-	2	-	-	-	-	-	-	2	_	-
		CO3		n and w		e opera		PC Cin	- mit ac	- lifferen	tiator o	- nd integr	ator		_	_
		CO2						r and cla				na miegi	at01.			
		CO3										d two sta	ge RC co	ounled au	nnlifier	
	Lak	CO4		n LC a				TI CIIIICO	, com	111011 30	urce an	u two sta	ge Re c	oupicu ai	принсі	
	its	CO5						mplifier	with a	nd with	out feed	lback				
EC05L	ircu		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
E	Analog Circuits Lab	CO1	2	2	3	-	3	-	-	-	3	-	-	2	3	2
	alo	CO2	2	2	3	-	3	-	-	-	3	-	-	2	2	2
	An	CO3	2	2	3	-	3	-	-	-	3	-	-	2	3	3
		CO4	2	2	3	-	3	-	-	-	3	-	-	2	2	2
		CO5	2	2	3	-	3	-	-	-	3	-	-	2	2	2
		CO1	Analy	ze diff	erent A	Analog	modu	lation &	demo	dulatio	n tech	niques	-	•	•	•
		CO2						g modu								
		CO3	1					digital				ues.				
		CO4											gital mo	dulation	technic	ues.
		CO5	Const									analog 8				
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
EC06L	ADC Lab	CO1	3	2	-	-	1	-	-	-	-	-	-	-	2	2
EC	ADC	CO2	3	2	-	-	1	-	-	-	-	-	-	-	2	2
		CO3	3	2	-	-	1	-	-	-	-	-	-	-	2	2
		CO4	3	2	-	-	1	-	-	-	-	-	-	-	2	2
		CO5	3	2	-	-	1	-	-	-	-	-	-	-	2	2



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1		CO1	Under	rstand t	he basio	cs of HI	DL and	Apply	differen	t progr	amming	gapproac	ches for o	btaining	digital L	ogic
			Gates	and ful	l adder	, Perfor	m simu	lation a	nd veri	fy the lo	ogical o	perations	s and also	o analyze	e the synt	hesis
	q		result													
	. La	CO2	Apply	progra	mming	approa	ach usin	g VHD	L for d	evelopi	ng deco	der, enco	oder and	multiple	xer, Perf	orm
	ם		simula	ation ar	nd verif	y the lo	gical op	peration	s and a	lso anal	yze the	synthesi	s result.			
		CO3	Write	VHDL S	ource o	code fo	r highei	order	compar	ator an	d ALU,	Perform	simulati	on and v	erify the	logical
	ith		opera	tions ar	nd also	analyze	the sy	nthesis	result.							
	>	CO4	Use VI	HDL pro	ogramn	ning apı	proach	for dev	eloping	Flip Flo	ps, reg	isters and	d shift re	gister cir	cuits, Per	rform
07	sigı		simula	ation ar	d verif	y the lo	gical op	eration	s and a	lso ana	lyze the	synthes	is result.			
EC	De	CO5	Design	n differ	ent Cou	ınters a	nd shif	t registe	er coun	ters usi	ng VHD	L Source	code, Pe	erform si	mulation	and
	шe		verify	the log	ical ope	erations	and al	so analy	ze the	synthes	sis resu	lt.				
	yst		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	II S	CO1	1	-	-	3	3	-	-	-	-	-	-	-	3	3
	gite	CO2	1	-	-	3	3	=-	-	-	-	-	-		3	3
	اق	CO3	1	-	-	3	3	-	-	-	-	-	-	-	3	3
		CO4	1	-	-	3	3	-	-	-	-	-	-	-	3	3
		CO5	1	-	-	3	3	-	-	-	-	-	-	-	3	3
									III-I							
		CO1	Under	retand t	he DC 4	and AC	analyci			al Amn	lifier a	nd perfor	mance n	arameter	s of OP-	Δmn
		CO1						d level,		ат Аттр	mici, a	na perior	тапсс р	arameter	.5 01 01 -2	Amp
		CO2								ng on-a	mp {A	pply leve	el KL3}			
	JS	CO3										ng Op-Ar		lvsis KL4	1}	
	tio	CO4										og IC's {L				
	ica	CO5										verters.				
308	ldd		0000.							6 006	,		(.PP.)	.,	,·	
E	CA		PO1	PO2	PO3	PO4	PO5	PO6	ı — —							
	arl	CO1							PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	<u>e</u>		3	2	-	-	-	_	PO7 -	PO8 -	PO9 -	PO10 -	PO11 -	PO12 -	PSO1	PSO2
	=. □				-						PO9 - -			PO12 - -	PSO1 2 2	
1	Li	CO2	3	2		-		-	-	-	PO9 - -	-	-	-	2 2	
	Lin	CO2 CO3	3 - 2	2	-	- 2 -	-	-	-	-	-	-	-	-	2 2 3	-
	Lir	CO2	3 -	2	-	- 2					-	- - -	- - -		2 2	
	Lin	CO2 CO3 CO4	3 - 2 2	2	-	- 2 - 3	- - -	- - -	- - -	- - -	-	- - -	- - -	- - -	2 2 3 3	- - -
	Lir	CO2 CO3 CO4	3 - 2 2 2	2 3 3		- 2 - 3 2									2 2 3 3 2	- - - -
	Lin	CO2 CO3 CO4 CO5	3 - 2 2 2	2 3 3 - -	- - - -	- 2 - 3 2	- - - - of mic								2 2 3 3	- - - -
	Lin	CO2 CO3 CO4 CO5	3 - 2 2 2 2 Under {Under	2 3 3 - -	- - - - he arch	2 3 2 itecture	of mice)	- - - - -	- - - - ssor an	- - - - -	- - - - - pasic ha		- - - - - componer	- - - - -	2 2 3 3 2	- - - -
	Lin	CO2 CO3 CO4 CO5	3 - 2 2 2 2 Under {Under Demo	2 3 3 - erstand therestand	- - - - he arching leve	2 3 2 itecture el, KL1	of mics		- - - - - ssor and	- - - - - d their l	- - - - - pasic ha	- - - - - rdware c	- - - - - componer	- - - - - nts and o	2 2 3 3 2	- - - -
	Lin	CO2 CO3 CO4 CO5	3 - 2 2 2 2 Under {Under Demo	2 3 3 - rstand therstand	- - - - he arching leve programus inte	- 2 - 3 2 2 itecture el, KL1 mming rfacing		- - - - roproce	- - - - - ssor an	- - - - d their l	- - - - - pasic ha	- - - - - essors. {	- - - - - ompone Analysis processo	- - - - nts and o	2 2 3 3 2 peration.	- - - - - KL4}
		CO2 CO3 CO4 CO5 CO1	3 - 2 2 2 Under {Under Analyz Under	2 3 3 	- - - - he arching leve programus inte	2 3 2 itecture el, KL1 mming rfacing	of mice skills ir technice		- - - - ssor and bly lang	- - - - d their l guage fo them fo	- - - - - - or proce or the d	- - - - - essors. {	- - - - - componer Analysis processo	- - - - nts and o level, KI or {Analysing level,	2 2 3 3 2 peration. 4} sis level, KL1, KL2	- - - - - KL4}
600		CO2 CO3 CO4 CO5 CO1 CO2 CO3 CO4	3 - 2 2 2 Under {Under Analyz Under	2 3 3 	- - - - he arching leve programus inte	2 3 2 itecture el, KL1 mming rfacing	of mice skills ir technice		- - - - ssor and bly lang	- - - - d their l guage fo them fo	- - - - - - or proce or the d	- - - - erdware constant	- - - - - componer Analysis processo	- - - - nts and o level, KI or {Analysing level,	2 2 3 3 2 peration. 4} sis level, KL1, KL2	- - - - - KL4}
EC09 EC07L MPMC Linear IC Applications Digital System Design with VHDL Lab		CO2 CO3 CO4 CO5 CO1 CO2 CO3 CO4	3 - 2 2 2 Under {Under Analyz Under	2 3 3 	- - - - he arching leve programus inte	2 3 2 itecture el, KL1 mming rfacing	of mice skills ir technice		- - - - ssor and bly lang	- - - - d their l guage fo them fo	- - - - - - or proce or the d	- - - - erdware constant	- - - - - componer Analysis processo	- - - - nts and o level, KI or {Analysing level,	2 2 3 3 2 peration. 4} sis level, KL1, KL2	- - - - - KL4}
EC09		CO2 CO3 CO4 CO5 CO1 CO2 CO3 CO4	3 - 2 2 2 Under {Under Demo	2 3 3	- - - he arching leve programus inte he architate how	2 3 2 itecture el, KL1 mming rfacing hitecture w the discontinuous control of the discontinuous control	of mice skills in technice of mice	roproce a assemi	- - - - ssor an bly lang d apply roller a	d their l	- - - - - or proce or the d r opera-	- - - - essors. { A lesign of tion {Unc	- - - - - - - - Analysis processo derstandi	- - - - nts and o level, KI or {Analysing level, zing level	2 2 3 3 2 peration. (A) sis level, KL1, KL2	- - - - - KL4}
EC09		CO2 CO3 CO4 CO5 CO1 CO2 CO3 CO4 CO5	3 - 2 2 2 Under {Under Demo	2 3 3	he arching lever programus inte he architate how	2 3 2 itecture el, KL1 mming rfacing hitecture w the discontinuous control of the discontinuous control	of mice skills in technice of mice	roproce a assemi	- - - - ssor and bly lang d apply roller a	d their l	- - - - - or proce or the d r opera-	- - - - essors. { A lesign of tion {Unc	- - - - - - - - Analysis processo derstandi	- - - - nts and o level, KI or {Analysing level, zing level	2 2 3 3 2 peration. (A) sis level, KL1, KL2	- - - - - KL4}
EC09		CO2 CO3 CO4 CO5 CO1 CO2 CO3 CO4 CO5	3 - 2 2 2 2 Under {Under Analyz Under Able to PO1 3	2 3 3 rstand therstand to instrate various rstand to illustrate polymer p	he arching level programus inte he archinate how	- 2 - 3 2 itecture el, KL1 mming rfacing nitecture w the di	of mice skills in technice of mice fferent PO5	roproce a assemi		d their loguage for them for their x proces		- - - - - essors. { A esign of tion {Unc nd debug			2 2 3 3 2 peration. (A) sis level, KL1, KL2 I, KL3}	- - - - - KL4} }
EC09		CO2 CO3 CO4 CO5 CO1 CO2 CO3 CO4 CO5	3 - 2 2 2 Under {Under Demo Analyz Under Able to PO1 3 3 3	2 3 3	he arching leve programus inte he architate how	2 - 3 2 itecture el, KL1 mming rfacing itecture w the di	of mice skills ir technice of mice pos e of mice ifferent	roproce asseminates and crocont on ARM PO6 -	ssor and apply roller a M Corte	d their loguage for them for nd their x proces	contractions and the contractions are sensible and the contractions are se	- - - - essors. { / esign of tion {Unc nd debug			2 2 3 3 2 peration. (A4) sis level, (KL1, KL2 I, KL3)	- - - - - KL4} }
EC09		CO2 CO3 CO4 CO5 CO1 CO2 CO3 CO4 CO5 CO1 CO2 CO3	3 - 2 2 2 Under {Under Demo Analyz Under Able to PO1 3 3 3 3 3	2 3 3	he arching level programus interested however the architecture at the however the architecture at the however the architecture at the however the architecture at the however the architecture at the however the architecture at the however the architecture at the arch	2 - 3 2 itecture el, KL1 mming rfacing itecture w the di	of mice skills ir technice of mice pos e of mice ifferent	roproce n asseminates and crocont on ARM PO6	ssor and apply roller a M Corte	d their land their land their land their land their land their land possible possibl	contractions and the contractions are sensible and the contractions are se	- - - - essors. { / esign of tion {Unc nd debug			2 2 3 3 2 peration. 4} sis level, KL1, KL2 I, KL3} PSO1 -	- - - - - KL4} }



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		CO1	Identi	fy the A	Antenna	Param	eters									
	ioi	CO2						na and	its corr	espondi	ing radi	ation cha	racteristi	ics		
	and Wave Propagation	CO3			-		ous for			_						
	pa	CO4									ntennas					
	Pro	CO5		•			of radio									
0	Š			.,												
EC10	×		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	pu	CO1	3	-	3	-	-	-	1	-	-	-	-	-	-	-
	as a	CO2	3	-	3	-	-	-	1	-	-	-	-	-	-	-
	Antennas	CO3	3	-	3	-	-	-	1	-	-	-	-	-	-	-
	nte	CO4	3	-	3	-	-	-	1	-	-	-	-	-	-	-
	A	CO5	3	-	3	-	-	-	1	-	-	-	-	-	-	-
				•		•		•	•	•		•	•	•	•	•
		CO1	.{App	olying le	evel, Kl	L3}									nd proces	
		CO2					n of the Underst				S devic	es to det	ermine tl	ne delays	of the ci	rcuits
		CO3	Elaboi	rate the	opera	tion of I	MOS cir	cuits to	design	the sin	ngle-sta	ge amplit	fiers {Cre	ating lev	el, KL6}	
	us Su	CO4		ze the s zing lev		-	mic CM	IOS des	ign aspo	ects to	develop	combin	ational a	nd seque	ential circ	cuits
EC11	VLSI Design	CO5		rstand t rstandir			al aspe	cts of C	PLD and	d FPGA,	, and se	veral adv	anced te	echnolog	ies. {	
	VLS															
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	•	CO1	2	-	2	-	2	-	-	-	-	-	-	-	-	-
		CO2	3	2	2	1	-	-	-	-	-	-	-	-	-	-
		CO3	3	2	2	1	-	-	-	-	-	-	-	-	-	-
		CO4	3	2	2	1	-	-	-	-	-	-	-	-	-	-
		CO5	3	2	-	-	2	-	-	-	-	-	-	-	-	-
		CO1	Able 1	to realiz	ze the c	concept	of Obj	ect Ori	ented F	rogran	nming d	& Java P	rogramn	ning, Ar	rays	
		CO2					concept		va such	as ope	erators,	classes,	objects,	inheritai	nce, pack	tages,
	₹	CO3	Apply	the co	ncept o	of excep	ption ha	andling	and In	put/ Οι	utput or	perations				
	Æ	CO4					ions of									
_	Through JAVA	CO5	Able	to Anal	yze &	Design	the co	ncept o	f Event	Handl	ing and	l Abstrac	et Windo	w Toolk	it	
OE01	S															
\sim			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
٦	Ŧ					1		_	-	-	-	-	-	-	1	1
5	PS Th	CO1	-	2	1	1	<u> </u>	<u></u>	<u></u>					<u> </u>		
5	OOPS Th	CO1 CO2	1	2	2	2	1	-	-	-		-	_	-	2	1
5	OOPS Th		-				1 1	-	-	-		-	-			
5	OOPS Th	CO2	-	2	2	2				- - -		- - -	- - -		2	1



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		CO1						erence i		and Ex	ample r	etworks,	characte	eristics o	f transmi	ssion
		CO2								d Medi	um Aco	cess Cont	trol Proto	ocols		
	S	CO3						outing A								
	or	CO4						ıble unr			ssion					
	et∧	CO5						us appl								
EC12	Computer Networks							- 11								
Ш	ute		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	ηdu	CO1	2		-	-	-	-	-	-	-	-	2	-	2	2
	Ç	CO2	2	2	_	_	-	-	_	-	-	_	2	-	2	2
		CO3	2	2	2	_	-	-	_	-	-	-	2	2	2	2
		CO4	-	-	2	-	-	-	-	-	-	-	2	2	2	2
		CO5	-	-	2	-	-	-	-	-	-	-	2	2	2	2
<u> </u>			1	<u>I</u>		1	1	1	1	1	1	<u>l</u>				
		CO1	Unde	rstand t	he hasi	Mathe	ematical	Lonerat	ions of	Operati	ional A	mplifier				
		CO2						respon								
	Q	CO3										ing Oner:	ational A	mplifier		
	Га	CO4					•								nvestiga	te
	ons	004		ent Vol				crators	using C	peranc	7 XII	ipiirici ai	na 555 1	inici & I	nvestiga	ic
	atic	CO5						Conver	ters and	l Digita	ıl – Ana	log Conv	erters			
EC08L	olic		120,0	op um	01 0110 11	ilaio 5	Digital		tors are	<i>.</i> 13 15110	1 1110	105 0011				
E	Applications Lab		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
		CO1	3	-	-	-	-	-	-	-	-	-	-	-	-	-
	Linear IC	CO2	2	_	_	_	_	_	_	_	_	-	_	_	_	_
	Li	CO3	3	3	_	3	_	_	_	_	_	-	_	_	_	_
		CO4	2	3	_	3	_	_	_	_	_	-	_	_	_	_
		CO5	2	3	_	3	_	_	_	_	_	_	_	_	_	_
J					<u> </u>			1	<u> </u>	<u> </u>		I	<u>I</u>	I.	<u>I</u>	I.
		CO1	Under		ogical a	ınd aritl	hmetic	function	ns perfo	rmed b	y 8086	and use t	hem to i	mplemen	t process	sing
		CO2	Demo	nstrate	the inte	erfacing	g of I/O	with 80	86 for	real-tin	ne appli	cations.				
		CO3										convers	ion opera	ations		
		CO4		_								nd arrays				
	Q	CO5										ng simul				
	Ġ					_										
1600	MC La						PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
EC09L	MPMC La		PO1	PO2	PO3	PO4	105									FJUZ
EC09L	MPMC Lab	CO1	PO1 3	PO2	PO3	PO4 -	-	-	-	-	-	-	-	3	3	2
EC09L	MPMC La	CO1 CO2		PO2 -	PO3 - 3	- PO4	- 3	- 2	-	-	-	-	-			
EC09L	MPMCLa		3	-	-	PO4 -	-	-	-	-	-	-	-	3	3	2
EC09L	MPMC La	CO2	3 -	-	3	-	3	2	-	-	-	-	-	3	3	2 3
EC09L	MPMC La	CO2 CO3	3 -		3	-	- 3 3	2 -		-				3 3 3	3 3 3	2 3 3



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								-	er a example a second	Secondario Philips	***************************************	red Departin	(200 2)				
		CO1										simulato	r				
		CO2		ze the s													
		CO3	Imple	ement co	ombina	tional a	nd sequ	ential c	ircuit d	esigns (on FPG	A board					
	q	CO4	Perfo	rm trans	sient, D	C and A	AC anal	ysis of	a desig	ned circ	cuit usir	ng mento	r graphic	es.			
	La	CO5	Illust	rate lay	out for	basic d	ligital c	ircuits a	t transi	stor lev	el						
11	Design Lab																
EC111	esi		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	
ш		CO1	-	-	2	3	3	-	-	-	-	-	-	-	3	2	
	VLSI	CO2	_	_	_	3	3	_	_	_	_	_	_	_	2	3	
	-	CO ₂	-	_	3	3	3	_	_	_	_	_	_	- -	2	3	
		CO3	-	-	3	3	3		_		-				3	2	
			-	-		-	3	-	-	-	-	-	-	-			
		CO5	-	-	3	-	3	-	-	-	-	-	-	-	3	3	
								I	II-II								
		CO1	Analy	ze the I	Discrete	Time	Signals	and Sv	stems&	Apply	the diff	erence e	quations	concept	in the an	alysis	
			of Discrete time systems O2 Know the importance of FFT algorithm for computation of Discrete Fourier Transform &Use the FFT algorithm for solving the DFT of a given signal														
		CO2					T algor	ithm fo	r comp	utation	of Disc	rete Four	ier Tran	sform &	Use the F	FT	
	ing	CO3	Design a Digital filter (FIR&IIR) from the given specifications Able to realize the digital filters														
	SSe																
	300	-						sino II	se the N	Aultirat	e Proce	ssing cor	cents in	various	annlicatio	ons	
<u>6</u>	Pr	Know the need of Multirate Processing, Use the Multirate Processing concepts in various applications &Learn the concepts of DSP Processors															
EC13	nal		CCDCu	III the c	опеери	or DB	1 11000	55015									
	Sig		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	
	tal	CO1	3	102	2	104	103	100	1	100	103	1010	1011	1012	1301	1302	
	igit			-		-	-	-		-	-	-	-	-	-	-	
		CO2	3	-	1	-	-	-	1	-	-	-	-	-	-	-	
		CO3	3	-	2	-	-	-	1	-	-	-	-	-	-	-	
		CO4	3	-	2	-	-	-	1	-	-	-	-	-	-	-	
		CO5	3	-	1	-	-	-	1	-	-	-	-	-	-	-	
		CO1	To ea	uipped	with th	e know	ledge o	f estima	ting the	e Dema	nd and	demand o	elasticitio	es for a r	roduct.	,	
		CO2													the least	cost	
	sis			ination	_					r 00		ро					
	alys	CO3					differe	nt mark	ets and	Price C	Output o	letermina	tion und	er vario	ıs market		
	An			tions ar							I						
	lai	CO4										nting too	ls for an	alvsis.			
	Managerial Economics and Financial Analysis	CO5										of capital			gues for		
	Fin	003		ion mak		III v CBtII	nem pro	geet pro	ровать	** 1011 011	e neip (or capitar	ouagem	ig teemin	ques for		
03	pu		400101	. JII IIIGN	₆ .												
HSM03	S a		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	
HS	ä	CO1	101	1 02	103	104	105		107	1 00		1010	1011	1 012	1301	1 302	
	Juo		-	-			- -	1		2	1	2	2	-	-	-	
	Ecc	CO2	-	-	-	-	-	1	-	2	1	2	2	2	-	-	
	rial	CO3	-	_	-	-	-	1	-	_	1	-	-	-	-	-	
	ıge	CO4	-		-	-	-	1	-	2	1	2	2	-		_	
	ane	CO5	-	-	-	-	-	1	-	2	1	2		3	-	-	
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								A CONTRACTOR	Service of the second of	Security Paris			77.1177			
		CO1		rstand f omager				charact	eristics	of recta	angular	wavegui	de and tr	ansmissi	on lines	through
		CO2						ical cha	racteris	tics of o	circular	wavegui	des throi	ıgh elect	romagen	tic field
	50	002					trip ant		10000110					<i></i>	2 0 1 1 1 1 2 1 1	
	Engineering	CO3							ork pro	perties	of pass	ive micro	owave co	mponen	ts	
	ee	CO4					crowave									
	gir	CO5										to analyz	e and me	easure va	rious	
EC14	En						ve bencl					•				
E	3ve															
	Microwave		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	cro	CO1	3	2	-	-	-	-	-	-	-	-	-	-	3	3
	Σ	CO2	3	2	-	-	-	-	-	-	-	-	-	-	3	3
		CO3	3	3	ı	-	-	-	-	-	-	-	-	-	3	3
		CO4	3	2	1	-	-	-	-	-	-	-	-	-	2	3
		CO5	3	2	-	-	-	-	-	-	-	-	-	-	2	3
	•	-	•			•		•	•	•	•			•	•	•
		CO1	Unde	rstand	inner w	orking	s of cell	lular sys	stem an	d Desc	ribe the	element	s of cellu	ılar syste	ems.	
		CO2	Categorize different interferences and to Evaluate different antennas using at cell site and mobile units													
		CO3														
		CO4														
				lular sy									-			
01	СМС	CO5	Devel	op and	Design	new te	chnolog	gies in v	wireless	cellula	ır systei	ns.				
PE01	5															
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
		CO1		3	-	-	-	-	-	-	-	-	-	-	3	2
		CO2	2	3	3	-	-	-	-	-	-	-	-	-	3	2
		CO3	3	3	3	-	-	-	-	-	-	-	-	-	2	3
		CO4	2	3	3	-	-	-	-	-	-	-	-	-	3	2
		CO5		3	3	-	-	-	-	-	-	-	-	3	3	3
		CO1	Descr	ihe the	archited	cture an	nd progr	ammin	g of AR	M prod	cessor					
		CO2					pedded s			in proc						
		CO3	-				of real t			system	design					
	1				abic co.								ems			
1			_		m desig	m techi	nanee t		יונטט טטנוי	waie it			C1110.			
		CO4	Use th	ne syste					1							
7	SC		Use th	ne syste					1			stem con				
,E02	RTOS	CO4	Use the To im	ne syste plemen	t a mod	lel real-	-time ap	plicatio	on using	gembed	lded-sy	stem con	cepts	P∩12	PS∩1	PSO2
PE02	ERTOS	CO4 CO5	Use the To im	ne syste			time ap		1					PO12	PSO1	PSO2
PE02	ERTOS	CO4 CO5	Use the To im	ne syste plemen PO2	t a mod	lel real-	-time ap	plicatio	PO7	PO8	PO9	PO10	PO11	2	3	1
PE02	ERTOS	CO4 CO5 CO1 CO2	Use the To im PO1 2 2	ne syste plemen	t a mod	PO4 -	PO5 2 -	PO6	PO7	PO8	PO9 - 1	stem con	PO11	2	3	1
PE02	ERTOS	CO4 CO5 CO1 CO2 CO3	Use the To im	PO2	PO3	PO4 - 2	PO5 2 - 2	PO6	PO7	PO8	PO9 - 1	PO10	PO11	2 1 2	3 3 3	1 1 3
PE02	ERTOS	CO4 CO5 CO1 CO2 CO3 CO4	PO1 2 2 3	PO2	PO3 3	PO4 - 2 2	PO5 2 -	PO6	PO7	PO8	PO9 - 1 1 -	PO10	PO11 1	2 1 2 1	3 3 3 3	1 1 3 1
PE02	ERTOS	CO4 CO5 CO1 CO2 CO3	Use the To im PO1 2 2	PO2	PO3	PO4 - 2	PO5 2 - 2	PO6	PO7	PO8	PO9 - 1	PO10	PO11	2 1 2	3 3 3	1 1 3



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		CO1									metic o	perations	s on sign	als and o	btain the	
				nse of the												
	q	CO2										computat				
	Digital Signal Processing Lab	CO3			•	•			functio	ons and	design	FIR, and	IIR filter	rs for bar	nd pass, b	oand
	sin			low pas												
	ĕ	CO4		ruct the												
EC13L	Pro	CO5	Unde	rstand t	he arch	itecture	of TM	S320C6	5713 DS	SP Proc	essors a	and emplo	oy it for	real time	processi	ng.
EC	а			1		1	1	1	1	1	1		1		1	1
	ign		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	S JE	CO1	3	-	ı	-	-	-	-	-	-	-	-	-	3	1
	git	CO2	3	-	-	-	-	-	-	-	-	-	-	-	2	3
	Ō	CO3	3	-	-	-	3	-	-	-	-	-	-	-	1	3
		CO4	3	-	-	-	2	-	-	-	-	-	-	-	1	2
		CO5	3	-	1	-	2	-	-	-	-	-	-	-	2	2
						ı	1	ı	1		1		1		1	1
		CO1	Defin	e differ	ent type	es of Int	tellectua	al Prope	erty Rig	hts						
		CO2		Define different types of Intellectual Property Rights Classify different Intellectual Property Rights & Describe Copy Right Laws												
		CO3	Classify different Intellectual Property Rights & Describe Copy Right Laws Explain importance of Patents, Patent Infringement													
		CO4	_	rstand i							Laws					
		CO5		ibe Cat												
4	~		Besch	100 040	<u>egorres</u>	or eye	or Earn	4114 11	11012							
MC04	IPR		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
		CO1	3	-	-	-	-	-	_	2	-	-	-	_	-	-
		CO2	_	-	2	-	_	_	-	2	-	-	-	-	-	-
		CO3	3	2	-	-	_	2	-	2	-	-	-	-	-	-
		CO4	3	-	2	-	-	2	-	2	-	-	-	-	_	-
		CO5	3	_	-	-	2	_	-	2	-	-	-	-	-	-
						<u>I</u>		<u>I</u>								
		CO1	Unde	rstand t	he adva	nced te	chnolog	gy and o	develop	ment as	spects					
		CO2										f the pro	ject to be	e develop	ed.	
		CO3		necessa												
		CO4										e the app	lication			
	cts	CO5										tal conte				
	oje		1	<i>y</i>	F	r		- <u>r</u>		01			**			
	Mini Projects		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	ji j	CO1	3	-	-	3	-	-	-	-	2	-	-	3	2	2
	2	CO2	2	2	3	-	_	_	_		3	_	3	3	2	2
			2	3	3	3	_	3	_		2		2	3	3	3
		CU3	,)				_	_			
		CO4				3				2					3	
		CO3 CO4 CO5	2 3	3	3	-	3	3	-	2 2	2 2	-	3	3	3	3 2



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									IV-I							
		CO1	Apply	manag	gement	and mo	tivation	theorie	es to rei	novate t	the prac	tice of m	anagem	ent.		
		CO2	Expla	in conc		quality	manag	ement a	nd use	process	s contro				ls of qual	ity
	Jce	CO3	Appra		functio							h high lev	vels of ch	nange in 1	the	
4	Management Science	CO4		fy activ		th their	interde	ependei	ncy and	l use sc	hedulin	g technic	ques of p	roject m	anageme	ent
HSM04	men	CO5	Devel	op glob	al visio	n and n	nanagei	ment sk	ills botl	h at stra	ategic le	evel and	interper	sonal lev	el.	
	ge		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	eu e	CO1	-	-	-	-	PU3	1	-	3	3	3	POII	2	P301	P302
	Š	CO2		_	-		-	1		3	3	3	3	2		-
		CO2		_	-	-	-	1		3	3	3	3	2		-
		CO3	-	_	-	_	-	1		3	3	3	3	2	-	_
		CO4	_	-		-	_	1		3	3	3	3	2	-	-
		CO3	-	-	-	-		т_	_	3	3	3				_
		CO1	Devel	lop the	Radar r	ange ec	uation	and Sol	ve anal	ytical p	roblem.					
		CO2	Expla	in the v	vorking	of CW	& FM	CW Rac	dar and	its app	lication	S.				
		CO3										rforman	ce.			
		CO4			oncept											
	ing	CO5											valuate	the vario	us compo	onents
	Engineering				ivers ar					- 1						
PE03	gin									_						
B	En		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	Radar I	CO1	3	2	-	-	-	-	1	-	-	-	-	2	2	3
	E	CO2	3	2	-	-	-	-	ı	-	-	-	-	2	2	3
		CO3	3	2	-	-	-	-	ı	-	-	-	-	2	2	3
		CO4	3	2	-	-	-	-	-	-	-	-	-	2	2	3
		CO5	3	2	-	-	-	-	-	-	-	-	-	2	3	3
		CO1	Fe::1:	iorizo :::	i+b b = ::	0.00:00:00	nto of	المائمة المائمة	maga :=:		a a a a a a	1:ff ~ ~ ~ +	imass	onoforce	•	
		CO1					•							ansform		
	90	CO2	doma		simage	proces	sing ted	nnique	s like ir	nage er	nnancer	nent bot	n in spai	tiai and fi	requency	,
	ssin	CO3			ith basi	c resto	ration t	echniau	ies							
	ce	CO4						•		hnique	s applic	able to v	arious ta	asks		
)5	Pro	CO5						<u>. </u>				ression r				
PE05	age		- Onaci	- Starrar t		4 101 00				J.1.20 10	· · · · · · · · · · · · · · · · · · ·					
	E E		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	Digital Image Processing	CO1	2	2	-	-	-	-	-	-	-	-	-	-	2	2
		CO2	2	3	_	-	-	-		-		-	-		3	2
		CO3	3	2	-	-	-	-	1		-	-	-	-	3	2
																L.



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		CO4	3	2	-	-	2	-	-	-	-	-	-	3	3	2
		CO5	3	3	-	-	3	2	-	-	-	-	-	3	3	3
					I	I	ı	ı				I.	I			<u>I</u>
		CO1	Descri	ibe the	functio	nality o	f variou	ıs comp	onents	in fibe	r optic o	communi	cation sy	/stem.		
		CO2						in opti			. 0 0 0 0			, , , , , , , , , , , , , , , , , , , ,		
	_	CO3									unders	standing	on solicii	ng techni	iques	
	Communication	CO4			-							different			ques	
	ca.	CO5						stem a				annerene	аррпсат	10113		
	n		Onaci	i staria t	iic acsi	811 01 0	ptical 3	ysterii a	iia vvb	IVI COITC	Сріз					
PE04	E		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
PE	on	CO1	101	3	103	104	103	100	107	108	103	1010	1011	3	3	2
	0	COI	2	3	_	_	_	_	_	_	_	_	-	3	3	2
	tics	CO2	2	3	_	_	_	_	_	_	_	_	_	_	3	2
	Optical	CO3	3	2	1	_	_	_	_	_	_	_	_	_	2	3
		CO4	3	3	1	_	-	-	_	_	_	_	_	_	2	3
		CO5	3	2	2	_	_	_	_	_	_	_	_	_	3	3
	<u> </u>	1 203	1 -			<u> </u>	<u> </u>	<u> </u>]]	<u> </u>	<u> </u>			
		CO1	Undo	rctand +	he con	ant of	Λrtifici-	al Neuro	nn .							
		CO2						nd learr		atenior						
		CO2														
					-			tworks Artificia			.o.rl.c					
		CO4														
~	_	CO5	Under	rstand S	ome ap	phicatio	on or Ar	rtificial	veurai	networ	KS					
OE02	ANN		DO1	PO2	DO2	DO4	DOE	DOC	DO7	DO0	DO0	DO10	DO11	DO12	DCO1	DCO2
0	٨	601	PO1		PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
		CO1	2	2	1	-	-	-	-	-	-	-	-	-	1	2
		CO2	-	1	-	3	-	-	-	-	-	-	-	-	1	3
		CO3	2	2	2	-	-	-	-	-	-	-	-	-	2	-
		CO4	1	-	2	2	-	-	-	-	-	-	-	-	-	2
		CO5	-	3	1	-	-	-	-	-	-	-	-	-	2	-
		CO4	T.1. /*	.C 1	d a second	4404 - 1 ¹	1 '		:		ore D					
		CO1		_								sive com	ponents.			
		CO2	•					rent mi								
		CO3						nicrowa			nponen	ts.				
		CO4						rent opt			,• •	C:1.	· · ·	41 - 11 1		
	MW&OC Lab	CO5	Evalu	ate vari	ous opt	ical fib	er parai	meters a	ind ana	lyze an	optical	fiber cor	nmunica	tion link.		
EC14L	၁၀		504				l					2010	2011			
E			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	Σ	CO1	3	2	-	-	-	-	-	-	2	-	-	2	2	2
		CO2	3	3	-	-	-	-	-	-	2	-	-	2	2	2
		CO3	3	3	-	-	-	-	-	-	2	-	-	2	3	3
		CO4	3	3	-	-	-	-	-	-	2	-	-	2	2	3
		CO5	3	3	-	-	-	-	-	-	2	-	-	2	3	3
	:1		1													
Į į,	[CO1						gy and								
Project	tage	CO2							_			of the pro	-	e develo	ped.	
۵	Σ	CO3	Build r	necessa	ry desig	n speci	fication	ns and d	ocume	nts for	the cho	sen proje	ect			
	_	·								·			·			·



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	T = -	1					Mark Control	second division in	Contractor - Date		red Departin	or and			
					_			-							
	CO5	Summ	arize th	ne basic	needs	and des	sign asp	ects to	procee	d for p	oduct de	evelopm	ent.		
		T	1	T	ı	T	T	1	T	T	T	T		1	Т
			PO2	PO3		PO5	PO6	PO7	PO8	PO9	PO10	PO11		-	PSO2
	CO1	3	-	-	3	-	-	-	-	-	-	-	3	2	2
	CO2	1	3	3	3	3	3	-	-	3	3	-	3	3	3
	CO3	2	3	3	3	3	3	-	-	3	3	-	3	3	3
	CO4	3		3	-	-	3	-	3		3	-	3	3	1
	CO5	-	-	2	-	-	-	-	-	-	-	-	3	1	1
								V-II							
	CO1	Unde	rstand t	the orig	in, basi	c conce	pts of s	atellite	commi	unicatio	ns, Cate	gorize lo	ok angle	s, and Di	scuss
				_			-					_	· ·		
	CO2	Analy	se the v	/arious	satellite	subsys	stems a	nd thei	r functi	onalitie	S				
ے	CO3	Evalua	ate sate	ellite lin	k desigi	n and A	pply th	e conce	pts of r	nultiple	access a	and vario	us types	of multi	ple
atio		acces	s techni	iques in	satellit	e syste	ms.								-
Jice	CO4	Explai	in earth	station	techno	ologies	and ear	th segn	nent.						
Jun I	CO5														
m															
S		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
tellite	CO1	-	2	-	-	-	-	-	-	-	-	-	3	2	3
Sa	CO2	-	2	-	-	-	-	-	-	-	-	-	-	3	3
	CO3	-	3	-	-	-	-	-	-	-	-	-	-	3	2
	CO4	-	-	3	-	-	-	-	-	-	-	-	-	2	2
	CO5	-	-	3	-	-	-	-	-	-	-	-	-	2	2
	CO1						sed on	the anal	ysis of	air poll	utants an	d relate	the pol	luting pl	ume
tro	CO2	Identi	fy suita	ble con	trol me	thods d	ependir	ng on th	e sever	ity and	type of a	ir polluti	on.		
Con	CO3	Classi	fy solid	wastes	and ide	entify su	uitable	collecti	on and	transfe	r mechar	nisms.			
જ	CO4				d waste	e mana	gement	metho	ds base	ed on th	e nature	of solid	waste ar	nd the qu	antities
uti	CO5				of noise	e pollut	ion and	sugges	t meth	ods for	mitigatir	ng the pr	oblem		
Po			·									•			
ntal		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
mei	CO1	3	2	-	-	-	-	-	-	-	-	-	-	2	-
lon	CO2	2	3	3	-	-	-	-	-	-	-	-	-	2	2
nvi	CO3	1	3	-	-	-	-	-	-	-	-	-	-	-	-
ш	CO4	1	2	3	-	-	-	-	-	-	-	-	-	2	-
	CO5	2	3	-	-	-	_	-	-	-	-	_	_	2	_
	Environmental Pollution & Control Satellite Communication	CO3 CO4 CO5 CO2 CO3 CO4 CO5 CO4 CO5 CO1 CO2 CO3 CO4 CO5 CO1 CO2 CO3 CO4 CO5 CO1 CO2 CO3 CO4 CO5 CO3 CO4 CO5 CO3 CO4 CO5	CO5 Summing	CO5 Summarize the PO1 PO2	CO5 Summarize the basic	PO1 PO2 PO3 PO4	CO5 Summarize the basic needs and described	PO1 PO2 PO3 PO4 PO5 PO6	PO1 PO2 PO3 PO4 PO5 PO6 PO7	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PS01



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		CO1	To pr	ovide a	n intens	ive & i	n-depth	learnin	g to the	e studen	ts in fie	eld of ent	repreneu	rship		
		CO2	To en	courage	e studer	nts to op	t for se	lf empl	oyment	as an a	ılternati	ve caree	option			
	Ħ	CO3	To en	able stu	idents t	o appre	ciate the	e dynan	nic chai	nges ha	ppening	g in the e	conomy			
	pme	CO4			he stud	ents ab	out the	role of	entrepre	eneursh	ip in th	e growth	and ecor	nomic de	velopme	nt of
	lelo		the na													
40	Entrepreneurial Skill Development	CO5	To an activi		ne role (of gove	rnment	and no	n-gover	nment	instituti	ons in su	pporting	entrepre	neurial	
OE04	al Sk		•													
	euri		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	ren	CO1	2	3	3	-	-	-	-	1		-	3	2	-	-
	trep	CO2	-	-	-	-	-	3	-	1	3	-	2	2	-	-
	굡	CO3	-	-	-	-	-	3	-	1	-	-	2	2	-	-
		CO4	-	-	-	-	-	3	2	1	-	-	2	2	-	-
		CO5	-	2	-	3	-	-	-	1	-	1	2	2	-	-
		CO1									gineerin					
		CO2												develop	ed.	
		CO3			-							sen proje				
	7-	CO4		lop apt o implem			hnical	knowle	dge to i	mplem	ent/cod	e the app	lication	and deplo	by the pro	oject
	Stage-2	CO5		nstrate			nprehei	nsively	with ne	cessary	tools					
	t St		•		•	<u>v</u>		<u> </u>		<u> </u>						
	Project (PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
	Pro	CO1	3	-	-	-	-	-	-	-	-	-	-	3	2	2
		CO2	2	-	2		3	-	-	-	3	3	3	3	2	3
		CO3	1	-	3	3	3	-	-	-	-	-	-	3	2	3
		CO4	2	-	3	3	2	-	-	2	-	-	-	3	2	2
		CO5	-	-	-	-	-	-	-	3	-	3	-	3	2	2