

KIET GROUP OF INSTITUTIONS, GHAZIABAD Department of Information Technology (NBA Accredited)



(An ISO – 9001: 2008 Certified & 'A' Grade accredited Institution by NAAC)



13 KM STONE, GHAZIABAD-MEERUT ROAD, GHAZIABAD – 201206

Website: www.kiet.edu





Department of Information Technology (NBA Accredited) (An ISO – 9001: 2008 Certified & 'A' Grade accredited Institution by NAAC)

Index

	4 th Semester													
S No.	Subject Code	Subject Name												
1	KVE-401	Universal Human Values												
2	KNC402	Python Programming												
3	KCS-401	Operating System												
4	KIT-401	Web Designing												
5	KCS-402	Theory of Automata & Formal Languages												
6	KOE-048	Electronics Engineering												
7	KCS-451	Operating System Lab												
8	KCS453	Python programming Lab												
9	KIT-451	Web Designing Lab												

		6 th Semester
S No.	Subject Code	Subject Name
1	RCS-601	Computer Networks
2	RIT-E22	Data Warehousing & Data Mining
3	RCS-603	Web Technology
4	RCS-602	Compiler Design
5	RUC-601	Cyber Security
6	RAS-601	Industrial Management
7	RCS-651	Computer Network Lab
8	RCS-653	Web Technologies Lab
9	RCS-652	Compiler Design Lab
10	RCS-654	Data Warehousing & Data Mining

13 KM STONE, GHAZIABAD-MEERUT ROAD, GHAZIABAD – 201206 Website: www.kiet.edu



KIET GROUP OF INSTITUTIONS, GHAZIABAD Department of Information Technology (NBA Accredited) (An ISO – 9001: 2008 Certified & 'A' Grade accredited Institution by NAAC)



		8 th Semester
S No.	Subject Code	Subject Name
1	RCS082	Image Processing
2	RCS087	Data Compression
3	ROE-083	Machine learning
4	RIT-852	Project
5	Seminar	Seminar

CO PO and Mapping of CO PO 2nd Year

(2018-2022 BATCH)

Session:- 2019-20 Semester:- 4th Theory

Universal	CO1:	Unders	stand the	e signifi	cance o	f value	inputs i	n a class	sroom, o	listingui	sh betwe	en value	es and sk	tills,	
Human Values	under	stand th	ne need,	basic g	uideline	es, conte	ent, and	process	s of valu	e educat	tion, exp	lore the	meaning	of	
(KVE-401)	happi	ness an	d prosp	erity and	d do a c	orrect a	ppraisal	of the	current	scenario	in the so	ociety.			
	CO2:	Disting	guish be	tween t	he Self	and the	Body, u	Indersta	nd the r	neaning	of Harm	ony in th	ne Self th	ne	
	coexi	stence of	of Self a	nd Bod	y.										
	CO3:	Unders	stand the	e value	of harm	onious i	relation	ship bas	ed on tr	ust, resp	ect and	other nat	urally		
	accep	cceptable feelings in human-human relationships and explore their role in ensuring a harmonious society													
	CO4:	CO4: Understand the harmony in nature and existence and work out their mutually fulfilling participation													
	in nature.														
	CO5: Distinguish between ethical and unethical practices and start working out the strategy to actualize a														
	harm	harmonious environment wherever they work.													
CO \ PO Mapping	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	
CO1	2	1	1			2	2	3	3	2		2	1	1	
CO2		2	1			2		3	2			2	1	1	
CO3		2	1			2	2	3	2	2		2	1	1	
CO4		2	1			3	2	3	3	2		2	1	1	
CO5		2	1			2	2	3	3	2		2	1	1	

Python	CO1:	: To rea	d and w	rite sim	ple pytł	non prog	grams								
Programming (KNC402)	CO2	: To dev	elop py	thon pr	ograms	with co	nditiona	als and l	oops						
$(\mathbf{K}\mathbf{N}\mathbf{C}402)$	CO3	To defi	ne Pyth	on func	tions an	d to use	Pythor	ı data st	ructures	lists,	tuples,	dictionar	ies		
	CO4	CO4: To do input/output with files in Python CO5:To do searching ,sorting and merging in Python													
	CO5														
CO \ PO Mapping	PO1	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PSO-1 PSO-2													
CO1	3	1	2	1	3	-	-	-	-	-	-	1	1	1	
CO2	3	2	2	2	3	-	-	-	-	-	-	2	2	2	
CO3	3	3	2	2	3	-	-	-	-	-	-	2	2	2	
CO4	3	2	2	2	3	-	-	-	-	-	-	2	2	2	
CO5	3	2	2	3	3	-	-	-	-	-	-	2	2	2	

	CO	l : Illust	rate the	need, e	volution	, variou	is categ	ories, ar	nd desig	n issues	of opera	ting syst	tems.		
Operating System (KCS-	CO2 mec	2: Analy hanism	ze the j availab	problem le.	is relate	d to con	currenc	y and th	ne diffei	ent sync	chronizat	ion			
401)	CO3 for p	3: Apply process	y the tec schedul	chniques ling.	s used to	o implei	ment pr	ocesses	and thre	eads as v	vell as th	e differe	ent algor	ithms	
	CO4	4: Analy	ze the	various	memory	y manag	gement (echniqu	ues for r	nemory	allocatio	n.			
	CO: stru	D5: Understand the Security issues, I/O management, Disk management and file system ructure in operating systems.													
CO\PO		tructure in operating systems.													
Mapping	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	
CO1	3	3	3	3	3	2	1	1	1	1	1	3	3	3	
CO2	3	3	2	3	2	2	2	1	1	1	1	3	3	3	
CO3	3	3	3	3	3	3	1	1	1	1	1	3	3	3	
CO4	3	3	2	3	2	3	3	2	1	1	2	3	3	3	
CO5	3	2	2	2	2	3	3	2	1	1	2	3	3	3	

	CO1:	Understa	and pri	nciple of	f Web pa	age des	ign and	about t	ypes of	websites	5.					
XX7 1	CO2: `	Visualiz	e and I	Recogniz	the ba	sic con	cept of	HTML	and app	olication	in web o	designing	g.			
Web Designing	CO3:]	Recogni	ze and	apply th	e eleme	nts of C	Creating	Style S	heet (C	SS).						
(KIT-401)	CO4: 1	CO4: Understanding the basic concept of Java Script and its application.														
CO5: Introduce basics concept of Web Hosting and apply the concept of SEO.																
CO \ PO Mapping	PO1	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PS01 PS02														
CO1	2	3	2	1	1	1	1	2	1	2	1	2	2	2		
CO2	3	1	3	1	2	1	1	1	1	3	1	2	2	2		
CO3	3	1	3	1	2	1	1	1	1	3	1	2	2	2		
CO4	2	1	3	3	3	1	2	2	1	1	1	3	2	2		
CO5	1	3	1	2	2	2	3	3	2	1	2	2	2	2		

Theory of Automata &	CO1: scienc	Acquire e langua	a full u ages des	ındersta sign.	nding aı	nd appli	cability	of Auto	omata T	heory as	the basis	s of all co	omputer	•	
Formal Languages	CO2: applic	Identify ability i	differe n real li	nt forma fe.	al langu	ages and	d design	the rec	ognizer	for regu	lar langu	ages to e	establish	their	
(KCS-402)	CO3:	Ability	to analy	se& des	sign gra	mmars f	for diffe	rent for	mal lang	guages.					
	CO4:	CO4: Understand the designing of Pushdown Automata and Turing machines.													
	CO5:	O5: Determine the decidability and intractability of computational problems.													
CO \ PO Mapping	PO1	PO1PO2PO3PO4PO5PO6PO7PO8PO9PO10PO11PO12PS0PS012													
CO1	3	2	2	2	1					1	1	1	2	2	
CO2	2	3	3	2	1					1	1	1	2	2	
CO3	2	2	3	3	1					1	1	1	2	2	
CO4	2	3	3	2	1					1	1	1	1	1	
CO5	1	3	2	3	1					1	1	1	1	1	

Electronics Engineering	CO1:	Underst	and the	basic p	rinciple	of laser	and bas	sic in qu	iantum i	mechanic	cs.			
(KOE-048)	CO2:	Describ	e the ele	ements a	and Tec	hniques	of Lase	er: and s	olve sin	nple prob	olems.			
	CO3:	Describ	e the Pr	inciple (of Laser	& Gen	eral Las	ers: Ma	in comp	onents o	of Laser			
	CO4:I scienti	Define T ific appl	ypes of ications	Laser S	Systems	and wo	orking pi	rinciple	of LAS	ER and i	ts basic	industria	l and	
	CO5:I	CO5:Describe Laser Applications in industry and different area in an optical fiber and secure foundation for optical fiber communication systems to attain a sound level in 3-d photography												
	for op	or optical fiber communication systems to attain a sound level in 3-d photography.												
CO \ PO Manning	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO	PSO
mapping													1	2
CO1	3	3	2	-	3	-	1	-	-	-	-	1	3	3
CO2	3	3	2	-	3	-	1	-	-	-	-	1	3	3
CO3	3	3	2	-	3	-	1	-	-	-	-	1	3	3
CO4	3	3	2	-	3	-	1	-	-	-	-	1	3	3
CO5	3	3	2	-	3	-	1	-	-	-	-	1	3	3

Practical

Operating	CO1	: Implei	nent tl	ne basic	comma	and of	OS and	will e	xecute t	he vario	ous syste	em call	s.		
System	CO2	: Implei	nent tl	ne proce	ess sync	hroniz	ation pr	oblem	using s	semapho	ore.				
	CO3	: Implei	nent C	CPU sch	eduling	algori	thm for	proce	ss scheo	luling a	nd dead	lock			
(KCS-451)	mana	agement	t techn	iques.											
	CO4	CO4: Implement memory management techniques.													
	CO5	CO5: Implement file storage allocation techniques.													
CO\PO		Solution and anotation techniques.													
Mapping	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	
CO1	3	3	3	3	3	2	1	1	1	1	1	3	3	3	
CO2	3	3	2	3	2	2	2	1	1	1	1	3	3	3	
CO3	3	3	3	3	3	3	1	1	1	1	1	3	3	3	
CO4	3	3	2	3	2	3	3	2	1	1	2	3	3	3	
CO5	3	2	2	2	2	3	3	2	1	1	2	3	3	3	

Python	CO1:	To unde	erstand	ling bas	ic synta	x of p	ython ir	nplem	entation	l				
programming	CO2:	To prac	tically	apply 1	ooping	and co	ondition	al con	structs					
Lab (VCS 452)	CO3: To implement programs related with list data structure. CO4: To implement various searching algorithm in python													
(KC5455)														
	CO5:	D5: To implement sorting techniques in python												
CO \ PO	PO1	O1PO2PO3PO4PO5PO6PO7POPO9PO10PO11PO1PS0PS0-2												
CO1	3	1	2	1	3	-	-	-	-	-	-	1	1	1
CO2	3	2	2	2	3	-	-	-	-	-	-	2	2	2
CO3	3	3	2	2	3	-	-	-	-	-	-	2	2	2
CO4	3	2	2	2	3	-	-	-	-	-	-	2	2	2
CO5	3	2	2	3	3	-	-	-	-	-	-	2	2	2

Web Designing	CO	: Under	standin	g the pri	nciple of	f Web a	design co	oncepts	5.						
Lab (KIT-451)	CO2: 1	Impleme	ntation	of HTM	IL in the	worki	ngs of th	e web	applicati	ons.					
	CO3: 4	Applying	g CSS f	for creati	ing and d	lesignii	ng the W	eb pag	es.						
	CO4: 4	Applying	g and b	uild dyn	amic we	b pages	s using c	lient-si	de progr	amming	JavaScr	ipt.			
	CO5: 4	O5: Analysing and developing different types of web pages using HTML, CSS and JavaScript.													
CO \ PO Mapping	PO1	PO1 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PS0- 1 PS0- 2													
CO1	2	3	2	1	1	1	1	2	1	2	1	2	2	2	
CO2	3	1	3	1	2	1	1	1	1	3	1	2	2	2	
CO3	3	1	3	1	2	1	1	1	1	3	1	2	2	2	
CO4	2	1	3	3	3	1	2	2	1	1	1	3	2	2	
CO5	1	3	1	2	2	2	3	3	2	1	2	2	2	2	

CO PO and Mapping of CO PO 3rd Year

(2017-2021 BATCH)

Session:- 2019-20 Semester:- 6th

Theory

	CO1:]	Build a	ın unde	erstand	ing of	the fun	damen	tal cor	cepts a	and Laye	ered Archi	itecture of	computer	networking.		
	CO2:	Unders	tand th	ne basio	c conce	epts of	link la	yer pro	operties	s to dete	ct error an	d develop	the soluti	on for error		
Computer Networks	CO3: 1	Design	, calcu	late, ar	nd appl	y subn	et mas	ks and	addres	sses to fu	ılfil netwo	orking requ	uirements	and		
(RCS- 601)	calcula	ate dist	ance a	mong 1	outers	in sub	net.									
	CO4: 1	Unders	tandin	g the d	uties o	f trans	port la	yer, ses	ssion la	iyer and	presentati	ion layer a	nd also fo	cus on		
	netwo	rk secu	rity iss	sues to	secure	comm	unicat	$\frac{100}{c}$ ion tov	vards s	ociety.	1		DNG			
	COS: FTP e	P, e-mail protocols and other applications.														
CONDOM :	, .	FP, e-mail protocols and other applications.														
CO \ PO Mapping	PO1	P, e-mail protocols and other applications. O1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PSO1 PSO2														
CO1	3	D1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PS01 PS02 2 2 2 3														
CO2	3	3	3	3	3	3	3	3	3	3	3	2	3	3		
CO3	3	3	3	2	3	3	3	3	3	3	3	2	3	3		
CO4	3	2	2	2	3	2	3	3	3	3	3	2	3	3		
CO5	3	2	2	3	3	2	2	2	3	2	3	2	3	3		

	CO1	: Unde	erstand	the ba	asic pr	inciple	es, con	cept ar	nd app	lications	s of data v	warehousing	7		
Data	CO2 mana	: Desig ageme	gn con nt	ceptua	l, Log	ical, ai	nd Phy	sical d	lesign	of data	warehous	e to present	information	needed by	
Warehousing & Data	CO3	:Use t	he tasl	k of da	ıta min	ing as	an im	portan	t phase	e of kno	wledge re	ecovery proc	cess		
(RIT-E22)	CO4	O4: Have a good knowledge of the fundamental concepts that provide the foundation of data mining.													
	CO5	CO5: Know about Security, Backup and Recovery of data warehouse.													
CO \ PO	PO1	CO5: Know about Security , Backup and Recovery of data warehouse.PO1PO2PO3PO4PO5PO6PO7PO8PO9PO10PO11PO12PSO1PSO2													
Mapping															
CO1	3	2	3	2	2	3	2	2	3	2	2	2	3	3	
CO2	3	3	3	2	2	3	3	2	3	3	2	3	3	3	
CO3	2	2	3	2	2	2	2	2	3	3	3	3	2	3	
CO4	2	3	2	2	3	3	2	2	2	3	2	2	3	2	
CO5	3	2	3	2	3	2	3	2	2	3	2	2	2	3	

	CO1: .	Apply	the k	nowle	dge o	f the i	nterne	t and	OOP	concept	in comp	outing an	d create de	sktop-	
	based	progr	ams u	sing J	ava pi	rograr	nming	g langı	lage.						
	CO2: [*]	Under	stand,	analy	vze, ap	ply a	nd cre	ate H	ΓML,	DHTM	L, and X	ML doc	uments for	web	
Web	devel	opmer	nt												
Technology	CO3: [•]	Under	stand,	apply	and o	create	progr	ams fo	or weł	o develo	opment u	sing Java	aScript and	create	
(RCS-603)	netwo	ork-ba	sed pr	ogran	ns usir	ng Jav	a.								
	CO4: [•]	Under	stand,	analy	ze, ar	d bui	ld JDI	BC co	ncepts	and al	so develo	op the Jav	va Beans fo	or business	
	logic.	ogic.													
	005	logic.													
	CO5:	Under	stand	the co	oncept	01 JS	P and	Servi	ets in	server-	side scrip	and and	create web	based	
	small	applic	cations	s using	g JSP	and se	ervlets	5.							
CO \ PO Mapping	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	
CO1	3	3	3	3	3	1	1	1	1	1	2	3	3	3	
CO2	3	3	3	3	3	1	1	1	1	1	1	3	3	3	
CO3	3	3	3	3	3	1	1	1	1	1	1	3	3	3	
CO4	3	3	3	3	3	1	1	1	2	1	1	3	3	3	
CO5	3	3	3	3	3	1	1	1	2	1	2	3	3	3	

	CO1 of va tool l	: Acqu rious c having	ire kno compil realis	owledg er tool tic con	ge of d s. Stuc straint	ifferer lents v s of co	nt phas vill als ompile	es and o be al rs.	passes ble to o	s of com design n	piler and nultiple m	to give the nodules of a	essence general cor	npiling	
	CO2	: Unde	rstand	the pa	irser ai	nd its t	ypes a	nd the	consti	ruction of	of various	types of pa	rsing tables		
Design	CO3 unde	: Imple rstandi	ement	the consynthe	npiler sized a	using and inl	syntax nerited	direct attribu	ted tra utes.	nslation	method a	and to get a	better		
(RCS-002)	CO4	204: Acquire knowledge about run time data structure like symbol table organization and different chniques used in that.													
	CO5 and t	O4: Acquire knowledge about run time data structure like symbol table organization and different <u>schniques used in that.</u> O5: Understand the target machine's run time environment, its instruction set for code generation and techniques used for code optimization.													
CO \ PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	
CO1	3	3	3	1	2	2	2	3	3	2	2	2	3	3	
CO2	3	3	2	2	2	3	3	2	3	3	2	3	3	3	
CO3	3	2	3	2	2	2	2	2	3	3	3	3	3	3	
CO4	2	3	2	2	3	3	1	1	2	3	2	2	3	3	
CO5	2	2	2	2	3	2	1	1	2	3	2	2	3	3	

	CO1: cyber	Learn securi	about i ty and i	nforma risk ass	ation sy sociated	stems, 1 to it .	its type	es, thre	ats, sec	urity iss	ues relat	ed to it a	nd also al	oout
	CO2:	Learn	about A	Applica	ation se	curity,	Data s	ecurity	and ty	pes of se	curity T	hreats in	network.	
Cyber	CO3: applie	Under cations	stand ti	he imp	ortance	of sect	ure info	ormatio	on syste	m and ri	sk mana	gement	issues ind	ifferent
(RUC-601)	CO4: also l	D4: Design security procedures, policies and also implement cryptography in their live projects and so learn about modern copyright, patent law, skills of ethics, cyber crime and IT ACT.												
	CO5: can p	Under rotect t	stand n heir inv	nodern vention	copyri is by m	ght, pat aking u	tent lav ise of tl	v, skills hese La	s of eth aws.	ics, cybe	er crime	and IT A	CT so that	at they
CO \ PO Mapping	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3	3	3	3	3	3	1	1	1	3	1	1
CO2	3	3	2	2	2	3	1	3	1	1	1	3	1	1
CO3	3	2	3	2	2	3	1	3	1	1	1	3	1	1
CO4	3	3	2	3	2	3	1	3	1	1	1	3	1	1
CO5	2	2	2	2	2	2	3	3	2	1	1	3	1	1

Industrial Management	CO1: manag	Underst gement.	and the	Concep	ot and So	cope of	Industri	al mana	gement	and app	ly the co	ncepts to	the		
(RAS-601)	CO2: manag	Underst gement.	and the	Concep	ot and So	cope of	Industri	al mana	gement	and app	ly the co	ncepts to	the		
	CO3:	Underst	and the	objectiv	ves of W	/ork stu	dy and	Inventor	ry contr	ol to ach	ieve orga	anization	al goals	.	
	CO4:U	D4:Understand the quality control techniques to manage industries. D5:Understand the need and process of network analysis to manage industrial projects.													
	CO5:U	O5:Understand the need and process of network analysis to manage industrial projects.													
CO \ PO Mapping	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2	
CO1	2	2	2	2	2	1	1	2	2	2	2	3	1	1	
CO2	2	2	2	2	3	1	1	-	1	1	2	2	1	1	
CO3	2	3	3	3	3	1	1	1	1	1	2	2	1	1	
CO4	2	2	2	2	3	1	1	1	2	2	2	2	1	1	
CO5	2	2	2	2	3	1	1	-	2	2	2	2	1	1	

Practical

	CO1: 1	Under	stand t	he fun	damer	ntal co	ncepts	of con	nputer	networ	king and	Network top	pologies.		
	CO2: 1	Know	about	differe	ent typ	es of r	networ	k devi	ces an	d desigr	ı, implem	ent, and ana	lyse simple	computer	
Computer	netwo	rks.													
Network	CO3: 1	Learn	the ba	sic net	work o	comma	ands ar	nd use	techni	iques, sk	tills, and	modern netv	vorking tool	s necessary	
Lab (RCS-	for en	gineeri	ing pra	actice.											
651)	CO4: 1	O4: Formulate problems and their solutions, think creatively and communicate effectively. O5: Describe how rapid progress of computer network technology can impact on the society and continue													
	CO5: 1	O5: Describe how rapid progress of computer network technology can impact on the society and continue													
	to adv	O5: Describe how rapid progress of computer network technology can impact on the society and continue o advance personal knowledge and understanding.													
CO \ PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	
Mapping			-	-	-	-	-	-	-	-	-			-	
CO1	3	2	2	2	2	3	3	2	3	3	3	2	3	3	
CO2	3	2	3	2	2	2	3	2	2	2	3	3	3	3	
CO3	3	2	3	2	3	2	2	3	2	2	2	3	3	3	
CO4	2	2	3	2	3	2	2	2	3	3	2	2	3	3	
CO5	3	2	2	2	2	3	2	2	3	2	2	2	3	3	

	CO1 class	Under es, inv	rstand voke r	and a and a	pply f ds, use	fundar e class	nental librar	s of w ries, A	veb de .pplet,	velopm AWT.	ent and c	an create	e Java		
	CO2	Unde	erstand	i, app	ly and	creat	e web	based	progr	ams us	ing HTM	IL, DHTI	ML, CSS	, XML,	
Wab	DON	A, and	SAX	to sol	ve rea	ul wor	ld pro	blems	s.						
Technologies	CO3	Unde	erstand	and (Create	Java	Script	based	dyna	mic we	b pages a	nd devel	ор		
Lab (RCS-	netv	/ork b	ased	progra	ams u	ising .	Java								
653)	CO4	Appl	y and	Creat	e data	base t	ables 1	using.	JDBC	and pro	oduce va	rious rest	ults based	l on SQL	
/	quer	uery. Apply and Create server-side java application using Servlet & JSP that can receive data sent													
	App	uery. Apply and Create server-side java application using Servlet & JSP that can receive data sent													
	from	Apply and Create server-side java application using Servlet & JSP that can receive data sent from client machine and process them to produce response to client.													
CO\PO	PO1	PO2	PO3	PO4	PÔ5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	
Mapping															
CO1	3	3	3	3	3	1	1	1	2	1	2	3	3	3	
<u> </u>	5	5	3	3	3	1	1	1	2	1	2	5	5	5	
02	3	3	3	3	3	1	1	1	1	1	1	3	3	3	
CO3					-					_	_	_	_		
	3	3	3	3	3	1	1	1	1	1	1	3	3	3	
CO4	3	3	3	3	3	1	1	1	1	1	1	3	3	3	
CO5	5	5				-	-	-	-	-	-	5	5		
	3	3	3	3	3	1	1	1	2	1	2	3	3	3	

	CO1 of pa	: To le atterns,	arn an , toker	id use is and	the ne regula	w tool r expr	s and ession	techno s in pr	ologies	used to ming fo	design a or solving	compiler an a problem in	d apply the l n the field of	compiler.		
Compiler	CO2	: To d	evelop	progr	am fo	r solvi	ng par	ser pro	oblem	s.						
Design Lab	CO3	O3: To create program for intermediate code generation. O4: To develop program for implementing symbol table.														
(RCS-652)	CO4	D4: To develop program for implementing symbol table.														
	CO5 prog	D4: To develop program for implementing symbol table.D5: To learn the new code optimization techniques and apply it to improve the performance of a ogram in terms of time and space.														
CO \ PO Mapping	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2		
COI	3	3	3	2	2	2	2	3	3	2	2	2	3	3		
CO2	3	3	2	2	2	3	3	2	3	3	2	3	3	3		
CO3	3	2	3	2	2	2	2	2	3	3	3	3	3	3		
CO4	2	3	2	2	3	3	1	1	2	3	2	2	3	3		
CO5	2	2	2	2	3	2	1	1	2	3	2	2	3	3		

Dete	CO1	: Prep	proces	s and i	mprov	ve data	a quali	ty						
Data Wanahanain	CO2	: Seleo	ct data	and te	echniq	ue for	the m	ining						
warenousin	CO3	: Use	Algori	thms f	for dat	a min	ing							
g & Data Mining	CO4	: Anal	yze da	ata usi	ng difi	ferent	techni	ques						
(RCS-654)	CO5	D5: Compare techniques based on result												
CO\PO	PO1	OI PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PS01 PS02												
Mapping														
CO1	3	3	3	2	3	1	1	2	2	3	3	2	2	3
CO2	3	1	2	3	2	1	1	3	2	1	2	2	2	3
CO3	3	3	3	3	2	1	1	1	2	2	3	3	2	3
CO4	3	2	2	3	2	3	2	2	3	2	2	3	2	3
CO5	2	2	3	3	3	3	2	2	3	2	2	3	2	3

CO PO and Mapping of CO PO 4th Year

(2016-2020 BATCH)

Session:- 2019-20 Semester:- 8th

Theory

	CO1: I quantiz	ntroduct zation an	ion to in d 2D tra	nage fui nsform	ndamer ation	ntals co	ntainin	g the c	oncept	of image	e acquis	ition, sar	npling,	
Image	CO2: I	dentify a	and study	the dif	fferent	types o	f image	e enhan	icemen	t technic	que.			
Processing	CO3: A	Analyze	and inter	pret the	e effect	s of hig	gh pass	and lov	w pass	filter in	an imag	e.		
(RCS082)	CO4: A	D4: Analyse and interpret the effect of different types of image segmentation techniques.												
	CO5: U	O4: Analyse and interpret the effect of different types of image segmentation techniques. O5: Understand the concept and need of image compression and recognition.												
CO \ PO Mapping	PO1	O5: Understand the concept and need of image compression and recognition.O1PO2PO3PO4PO5PO6PO7PO8PO9PO10PO11PO12PS01PS02												
CO1	3	2	1	1	2	1	1	2	1	1	1	2	1	3
CO2	3	2	2	2	1	1	1	2	1	2	2	1	1	3
CO3	2	3	3	3	2	2	2	2	1	1	1	1	2	3
CO4	3	2	3	3	2	2	1	2	1	1	2	1	2	3
CO5	3	1	1	2	2	1	2	2	2	1	2	2	1	3

	CO1:I	dentify I	Lossless	and lo	ssy cor	npress	ion, In	format	ion The	ory and I	Modell	ing			
D (CO2: 4	Acquire	knowled	lge of	generi	c Loss	less (te	ext) con	npressio	on Algor	ithms.				
Data	CO3: 4	Apply L	ossy (Im	age) C	ompre	ssion A	Algorit	hms.							
Compression	CO4: 4	Analyse	distortic	on and	quantiz	zation	technic	lues							
(RCS087)	CO5: I	CO5: Demonstrate Advanced Quantization Techniques													
CO \ PO	PO1	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PS01 PS02													
Mapping															
CO1	3	2	1	3	1	1	1	1	1	1	1	1	3	3	
CO2	3	3	2	3	1	2	1	1	1	1	1	1	3	3	
CO3	3	3	3	3	1	2	1	1	1	1	1	1	3	3	
CO4	3	2	1	3	1	1	1	1	1	1	1	1	3	3	
CO5	3	2	1	3	1	1	1	1	1	1	1	1	3	3	

	CO1:It unders	t encoura	ages crit about th	ical ap e subje	proach ect and	. It ena helps	ables to in care	o devel ful and	op a spe 1 focuse	cific dir d analys	ection a is of da	as well as ta collect	better ed.	
Machine	CO2: Effective methods to lay out the problem so that all options can be challenged and to analyze fully													
learning	the possible consequences of decision taken. It encourages the ability to learn and model non-linear and													
(ROE-083)	complex relationships.													
	CO3: To determine the accuracy of test results.													
	CO4: This step-by-step cognitive strategy teaches students to think as if they are computers. With this students are taught how to approach new information and new problems and to reduce the complexity of storing instances, this module been proposed.													
	CO5: I	For high	n-quality	y solut	ions f	or opt	imizat	tion p	roblems	s and se	arch p	roblems	•	
CO \ PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Mapping														
CO1	3	3	3	3	3	2	2	3	2	2		2	1	1
CO2	3 3 3 3 2 2 2 2 2 2 2 2 2													
CO3	3	3	3	3	3	3	2	2	2	2		2	2	2
CO4	3	3	3	3	3	3	2	2	2	2		2	3	3
CO5	3 3 3 3 3 3 3 3 3 3												3	3

Practical

	CO1: Select and summarize all aspects of the real life problem through survey.													
D • 4	CO2: Apply acquired knowledge to develop working model and plan different phases for its execution.													
Project	CO3: Analyze outcome of each phase using various tools, techniques, and coding practices.													
(RIT-852)	CO4: Justify/defend opinions, validity of ideas or quality of work based on a set of criteria.													
	CO5: Test the working model and modify related phase accordingly. Finally integrate all phases													
CO\PO	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PS01 PS02													
Mapping														
CO1	3	3	3	3	3	2	1	1	3	3	3	3	3	3
CO2	3	3	3	3	2	2	1	1	3	2	3	3	3	3
CO3	3	3	3	3	2	2	1	1	3	2	3	3	3	3
CO4	3	3	3	3	2	2	1	1	3	2	2	3	3	3
CO5	3	3	3	3	2	2	1	1	3	2	1	2	3	3

	CO1: Develop presentation skills.													
a •	CO2: Impart knowledge in different aspects of knowledge domains.													
Seminar	CO3: Build confidence and improve communication skills.													
(RIT-851)	CO4: Sharpen their personality and intelligence.													
, , ,	CO5: Share ideas among the team members.													
CO \ PO	PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PS01 PS02													
Mapping														
CO1	3	3	3	1	2	1	1	1	2	2	1	3	3	3
CO2	3	3	2	2	1	1	1	1	3	2	1	3	3	3
CO3	3	3	3	3	1	1	1	2	1	3	1	3	3	3
CO4	3	3	3	3	2	2	1	2	2	3	1	3	3	3
CO5	3	3	3	3	2	2	1	1	1	3	1	3	3	3