



Phone: 0824 - 2254104 Website: www.sdc.ac.in, E-mail: sdit kenjar@rediffmail.com

Academic year: 2022-2023

## Semester-I

COUTE Outcomes  COUTE Apply the fundamentals of set theory and matrices for the given problem.  CO2 Apply the types of distribution, evaluate the mean and variance for the given case study/ problem  CO3 Solve the given problem by applying the Mathematical logic concepts.  CO4 Model the given problem by applying the concepts of graph theory  CO5 Design strategy using gaming theory concepts for the given problem.  CO6 Identify and list the different applications of discrete mathematical concepts in computer science.  CO-PO-PSO Mapping  CO8 POS  1 2 3 4 5 6 7 8 9 10 11 12  CO1 3 3 3 3	Subject: N	/Iathema	atical Fo	oundati	on for C	Comput	er Appl	ication	S		Subje	ct Cod	e: 22M	CA11	
CO2						C	Course (	Outcon	nes						
Solve the given problem by applying the Mathematical logic concepts.   CO4	CO1										•				
CO4   Model the given problem by applying the concepts of graph theory  CO5   Design strategy using gaming theory concepts for the given problem.  CO6   Identify and list the different applications of discrete mathematical concepts in computer science.  CO-PO-PSO Mapping  CO8   POS    1   2   3   4   5   6   7   8   9   10   11   12    CO1   3   3   3	CO2	Apply	the typ	es of d	istributi	on, eva	luate th	e mean	and va	ariance 1	for the g	given ca	se stud	y/ problem	
CO5 Design strategy using gaming theory concepts for the given problem.  CO6 Identify and list the different applications of discrete mathematical concepts in computer science.  CO-PO-PSO Mapping  CO8 POS TOS TOS TOS TOS TOS TOS TOS TOS TOS T	CO3	Solve	the give	en prob	lem by	applyir	ng the M	Iathem	atical l	ogic cor	ncepts.				
CO6 Identify and list the different applications of discrete mathematical concepts in computer science.  CO-PO-PSO Mapping  Pos  1 2 3 4 5 6 7 8 9 10 11 12  CO1 3 3 3										_					
CO-PO-PSO Mapping	CO5														
Cos	CO6	Identi	fy and l	ist the	differen	t applic	ations c	of discr	ete mat	hematic	cal conc	epts in	comput	er science.	
Cos   1						(	CO-PO-	PSO M	<b>Iappin</b>	g					
1	Coa						Po	OS							
CO2	Cos	1	2	3	4	5	6	7	8	9	10	11	12		
CO3	CO1			3	3										
CO4	CO2			3	3										
CO5	CO3			3	3										
Cof Subject: Operating System concepts.  Course Outcomes  Col Analyse the basic Operating System Structure and concept of Process Management CO2 Analyse the given Synchronization/ Deadlock problem to solve and arrive at valid conclusions.  CO3 Analyse OS management techniques and identify the possible modifications for the given problem contect of Demonstrate the working of basic commands of Unix environment including file processing 5 CO5 Demonstrate the usage of different shell commands, variable and AWK filtering to the given problem  CO-PO-PSO Mapping  Cos Pos  Tos Tos Tos Tos Tos Tos Tos Tos Tos	CO4			3	3										
Average 3 3 3 Subject: Operating System concepts.  Course Outcomes  CO1 Analyse the basic Operating System Structure and concept of Process Management CO2 Analyse the given Synchronization/ Deadlock problem to solve and arrive at valid conclusions.  CO3 Analyse OS management techniques and identify the possible modifications for the given problem contect of Demonstrate the working of basic commands of Unix environment including file processing 5  CO5 Demonstrate the usage of different shell commands, variable and AWK filtering to the given problem CO-PO-PSO Mapping  Cos Pos Mapping  Cos Pos Mapping  Cos 1 2 3 4 5 6 7 8 9 10 11 12  CO1 3 9 10 11 12	CO5			3	3										
Subject: Operating System concepts.  Course Outcomes  CO1	CO6			3	3										
Course Outcomes  CO1 Analyse the basic Operating System Structure and concept of Process Management  CO2 Analyse the given Synchronization/ Deadlock problem to solve and arrive at valid conclusions.  CO3 Analyse OS management techniques and identify the possible modifications for the given problem contect of Demonstrate the working of basic commands of Unix environment including file processing 5  CO5 Demonstrate the usage of different shell commands, variable and AWK filtering to the given problem   CO-PO-PSO Mapping  Cos Pos Pos Pos Pos Pos Pos Pos Pos Pos P	Average			3	3										
CO1 Analyse the basic Operating System Structure and concept of Process Management CO2 Analyse the given Synchronization/ Deadlock problem to solve and arrive at valid conclusions.  CO3 Analyse OS management techniques and identify the possible modifications for the given problem contect of Demonstrate the working of basic commands of Unix environment including file processing 5 CO5 Demonstrate the usage of different shell commands, variable and AWK filtering to the given problem  CO-PO-PSO Mapping  Cos Pos  1 2 3 4 5 6 7 8 9 10 11 12 CO1 3 9 10 11 12	Subject: (	Operatin	g Syste	m conc	epts.						Subje	ct Cod	e: 22M	CA12	
Analyse the given Synchronization/ Deadlock problem to solve and arrive at valid conclusions.  Analyse OS management techniques and identify the possible modifications for the given problem contect to Demonstrate the working of basic commands of Unix environment including file processing 5  CO5 Demonstrate the usage of different shell commands, variable and AWK filtering to the given problem   CO-PO-PSO Mapping  Cos Pos  1 2 3 4 5 6 7 8 9 10 11 12  CO1 3 9 10 11 12						(	Course (	Outcon	nes						
Analyse OS management techniques and identify the possible modifications for the given problem contect CO4 Demonstrate the working of basic commands of Unix environment including file processing 5  CO5 Demonstrate the usage of different shell commands, variable and AWK filtering to the given problem   CO-PO-PSO Mapping  Cos Pos  1 2 3 4 5 6 7 8 9 10 11 12  CO1 3 9 10 11 12										•					
CO4 Demonstrate the working of basic commands of Unix environment including file processing 5  CO5 Demonstrate the usage of different shell commands, variable and AWK filtering to the given problem  CO-PO-PSO Mapping  Pos  1 2 3 4 5 6 7 8 9 10 11 12  CO1 3 9 2	CO2														
CO5         Demonstrate the usage of different shell commands, variable and AWK filtering to the given problem           CO-PO-PSO Mapping           Pos           1         2         3         4         5         6         7         8         9         10         11         12           CO1         3         3         4         5         6         7         8         9         10         11         12	CO3	Analys	e OS m	anagen	nent tecl	hniques	and ide	entify the	he poss	ible mo	dification	ons for	the give	en problem cont	text.
CO-PO-PSO Mapping    Cos		Demon	strate th	ne work	ing of l	oasic co	mmand	ls of Uı	nix env	ironmer	nt includ	ling file	proces	ssing 5	
Pos           Pos           1         2         3         4         5         6         7         8         9         10         11         12           CO1         3         3         2         2         2	CO5	Demon	strate th	ne usag	e of dif	ferent s	hell con	nmands	s, varia	ble and	AWK f	iltering	to the g	given problem	
Cos         1         2         3         4         5         6         7         8         9         10         11         12           CO1         3         3         2         2         2         2							O-PO-	PSO M	<b>Iappin</b>	g					_
CO1 3 4 5 6 7 8 9 10 11 12	Car						Po	OS							
	Cos	1	2	3	4	5	6	7	8	9	10	11	12		
	CO1		3								2				
	CO2		3								2				
CO3 3 2 2	CO3		3								2				
CO4 3 2	CO4		3								2				
CO5 3 2	CO5		3								2				
Average 3 2	Average		3								2				

Subject:	Data Stru	ctures	with A	lgorithn	n					Subject	ct Code	e: 22M	CA13		
					(	Course (	Outcon	nes							
CO1	Demon	strate di	ifferent	t data st	ructure	s, its op	eration	s using	C progr	amming	<u>z</u>				
CO2	Analyse	the pe	rforma	nce of S	Stack, (	Queue, I	Lists, T	rees, Ha	ashing, S	Searchir	ng and	Sorting	technique	es.	
CO3	Implem	ent son	ne appl	ications	of data	a structu	ires in a	ı high-l	evel lan	guage s	uch as	C/C++			
CO4	Design	and app	oly app	ropriate	data si	tructure	s for so	lving co	omputin	g probl	ems.				
CO5	Compu	te the et	fficienc	cy of alg	gorithm	s in teri	ns of a	sympto	tic notat	ions for	the giv	ven pro	blem.		
					(	CO-PO-	PSO M	<b>Iappin</b>	g						
Cos						Po	S								
Cus	1	2	3	4	5	6	7	8	9	10	11	12			
CO1					3							3			
CO2					3							3			
CO3					3							3			
CO4					3							3			
CO5					3							3			
Average					3							3			

Subject:	Compute	er Netw	orks							Subjec	t Code	e: 22M	CA14	
					C	ourse (	Outcon	nes						
CO1					networl for the g	_		-	fferent	paramet	ers suc	h as ba	ndwidth, dela	ıy,
CO2	~ ~ ~	differe unication		niques t	to ensur	e the re	liable a	and secu	ired con	nmunica	tion in	wired	and wireless	
СОЗ	A naly	se the 1	networl	king coi	ncepts o	f TCP/	IP for v	wired an	nd wirele	ess com	ponent			
CO4	Identif	y the is	sues of	Transp	ort laye	r to ana	alyse th	ne cong	estion co	ontrol m	echani	sm		
CO5	Design	netwo	rk topo	ology w	ith diffe	rent pro	otocols	and an	alyse the	e perfori	nance	using N	IS2	
					C	O-PO-	PSO N	<b>Iappin</b>	g					
Cos						Po	OS							
Cos	1	2	3	4	5	6	7	8	9	10	11	12		
CO1	3											2		
CO2	3											2		
CO3	3											2		
CO4	3											2		
CO5	3											2		
Average	3											2		

Subject: o	design a	nd anal	ysis of	algorith	nm					Subje	ct Code	e: 22M	CA15	
					(	Course (	Outcon	nes						
CO1	Categ	orize pr	oblems	based	on their	r charac	teristic	s and pi	actical i	importa	nce.			
CO2	Devel	op Algo	orithms	using i	terative	e/recursi	ve app	roach						
CO3	Comp	ute the	efficie	ncy of a	lgorith	ms in te	rms of	asympt	otic not	ations				
CO4	Desig	n algori	thm us	ing an a	ppropr	iate desi	ign par	adigm f	or solvi	ng a giv	en prob	olem		
CO5	Class	ify prob	olems a	s P, NP	or NP	Comple	ete							
C06	Imple	ment al	gorithn	ns using	variou	ıs desigr	1 strate	gies and	d determ	nine thei	r order	ofgrow	th.	
					(	CO-PO-	PSO M	<b>Iappin</b>	g					
Con						Pe	os							
Cos	1	2	3	4	5	6	7	8	9	10	11	12		
CO1		3									2			
CO2		3									2			
CO3		3									2			
CO4		3									2			
CO5		3									2			
Average		3									2			

Subject: I	Data Stru	ictures	with A	lgorithn	ns Lab					Subje	ct Code	e: 22M	CAL16
					C	Course (	Outcor	nes					
CO1	Imple	ment so	rting /	searchi	ng techi	niques, a	and val	lidate in	put/out <sub>l</sub>	out for t	he give	n probl	em.
CO2	_	ment da ions an			namely	Stacks,	Queue	es, Circu	ılar Que	ues, Lir	iked Lis	sts, and	Trees), its
CO3	_		_	rithm to techniqu			_	n graph	is conn	ected or	not and	d concl	ude on the
CO4	Design	n and ap	oply ap	propria	te data	structur	es for s	solving	computi	ng prob	lems		
CO5	Imple	ment th	e techn	iques fo	or evalu	ating th	e give	n expres	ssion.				
					C	O-PO-	PSO N		g				
CO-						Po	os						
COs	1	2	3	4	5	6	7	8	9	10	11	12	
CO1				2					2				
CO2				2					2				
CO3				2					2				
CO4				2					2				
CO5				2					2				
	1			1				+	2				

Subject: (	Compute	er Netw	orks L	ah						Subie	ect Cod	e: 22M	CAL17
Susjeen	Jinput	1000	JIII) 11		(	Course	Outcor	nes		Daoje			<u></u>
CO1						king ar	nd to an	alyse d	ifferent	parame	ters suc	ch as ba	ndwidth, delay,
CO2	Apply		ent tech						ured cor	nmunic	ation ir	n wired	and wireless
CO3	Analy	se the	networl	king coi	ncepts o	f TCP/	IP for w	rired ar	nd wirele	ess com	ponents	s	
CO4	Identi	fy the i	ssues o	f Trans	port lay	er to an	alyse th	ne cong	estion c	ontrol r	nechani	ism	
CO5	Design	netwo	rk topol	logy wi	th diffe	rent pro	tocols a	and ana	lyse the	perfori	nance u	ısing an	y simulator
					(	CO-PO	-PSO N	<b>Iappin</b>	ıg				
Cos						Po	OS						
Cos	1	2	3	4	5	6	7	8	9	10	11	12	
CO1											2	2	
CO2											2	2	
CO3											2	2	
CO4											2	2	
CO5											2	2	
Average											2	2	
Subject: I	Research	n Metho	odology	& IPR	•					Subje	ct Cod	e: 22RI	MI18
						Course							
CO1	Identi proble		suitable	researc	h meth	ods and	articul	ate the	research	ı steps i	n a proj	per sequ	ience for the given
CO2					define ( format (					ggest su	itable s	olution	for the given
CO3	Analy	se the j	problen	n and co	onduct e	experim	ental d	esign w	ith the s	amplin	gs		
CO4	Perfo	rm the	data col	lection	from va	arious s	ources	segrega	ate the p	rimary	and sec	ondary	data
CO5	Apply	some		ts/section									o the given case and
		•			(	CO-PO	-PSO N	<b>Iappin</b>	ıg				
~~						P	os						
COs	1	2	3	4	5	6	7	8	9	10	11	12	
CO1	3									3			
CO2	3									3			
CO3	3									3			
CO4	3									3			
CO5	3									3			
Average	3									3			

Subject: I	Basics of	progra	mmin	g and co	ompute	r organ	ization	l		Subjec	ct Code	: 22M	CA110	
					(	Course (	Outcor	nes						
CO1	Identi: proble		uitable	researc	h metho	ods and	articul	ate the	research	steps in	a prop	er sequ	uence for the given	
CO2						the prob of the re				gest sui	table sc	lution	for the given	
CO3	Analy	se the p	roblen	and co	nduct e	experim	ental d	esign w	ith the s	ampling	gs			
CO4	Perfor	m the d	lata col	lection	from va	arious s	ources	segrega	te the p	rimary a	nd seco	ndary	data	
CO5	~ ~ ~	some o	•		on of Co	py Rig	ht Act	Patent .	Act /Cy	ber Law	/ Trade	mark t	o the given case ar	d
					(	CO-PO-	PSO N	<b>Iappin</b>	g					
COs						P	os							
COS	1	2	3	4	5	6	7	8	9	10	11	12		
CO1			3					3						
CO2			3					3						
CO3			3					3						
CO4			3					3						
CO5			3					3						
Average			3					3						

## SEM 2

Subject: I	Database	Manag	gement	System	1					Subjec	t Code	: 22M	CA21	
					C	Course (	Outcor	nes						
CO1	Apply	the bas	sic con	cepts of	databa	se mana	gemen	t in des	igning t	he datab	ase for	the giv	ven problem.	
CO2	_	n entity and val		•	liagrams	s to the	given j	problem	to deve	elop data	ıbase ap	plicati	ion with approp	riate
CO3	Imple	ment a	databas	se scher	na for tl	he giver	n probl	em dom	ain					
CO4	Formu	ılate an	d exect	ite SQL	querie:	s to the	given j	problem	١.					
CO5	Apply	norma	lizatior	n techni	ques to	improve	e the d	atabase	design	to the gi	ven pro	blem		
					C	O-PO-	PSO N	<b>Aappin</b>	g					
Can						P(	Os							
Cos	1	2	3	4	5	6	7	8	9	10	11	12		
CO1			3	3										
CO2			3	3										
CO3			3	3										
CO4			3	3										
CO5			3	3										
Average			3	3										

Subject: C	bject O	riented	Progra	mming	with Ja	ava				Subje	ct Cod	e: 22M	ICA22
					(	Course (	Outcor	nes					
CO1				c progra	amming	g constru	ucts of	Java an	d OOP	concept	s to de	velop J	ava programs for a
	given s												
CO2	Illustra compo		oncept	s of gen	eraliza	tion and	run tir	ne poly	morphis	sm appli	cations	s to dev	elop reusable
CO3	Demon applica		he usag	ge of Pa	ckages.	, Interfac	ces, Ex	ception	s and M	lultithre	ading i	n build	ing given
CO4	Apply l				ers, Au	ıto boxiı	ng, Col	lection	framew	ork and	I/O op	eration	s for effective coding
CO5	_			•		and net probler		ig using	Java ne	etwork c	lasses	for dev	eloping the
					(	CO-PO-	PSO N	<b>I</b> appin	g				
Cos						Po	os						
Cos	1	2	3	4	5	6	7	8	9	10	11	12	
CO1	3									2			
CO2	3									2			
CO3	3									2			
CO4	3									2			
CO5	3									2			
Average	3									2			

Subject: S	Software	Engine	ering							Subje	ct Code	e: 22M	CA23
					(	Course (	Outcor	nes					
CO1	Identi	fy and d	lefine o	lifferen	t require	ements	for the	given p	roblem	and pre	sent in	the IEE	EE format
CO2	Use n	nodern t	ool to	create d	ynamic	diagrar	ns to re	epresen	t the des	ign for	the give	en prob	lem
CO3		class di sent ther	_	•			types o	of assoc	iation th	at exist	s as per	the giv	ven problem and
CO4		se the g				y actors	s, use c	ases to	design ı	ise case	diagrai	ns for t	the given problem
CO5		n the staten) usi				o meet	applica	tion red	quireme	nts of th	e given	systen	n and generate coo
					(	CO-PO-	PSO N	<b>Iappin</b>	g				
<b>C</b>						Po	0S						
Cos	1	2	3	4	5	6	7	8	9	10	11	12	
CO1		3									2		
CO2		3									2		
CO3		3									2		
CO4		3									2		
CO5		3									2		
Average		3									2		

Subject: V	Veb Tec	hnologi	ies							Subjec	t Code	: 22M	CA24	
					(	Course (	Outcor	nes						
CO1	Apply	the fea	tures J	Query f	or the g	given we	eb base	d probl	em					
CO2	Demo	nstrate	the dev	elopme	nt of X	HTML	docum	ents usi	ing Java	Script a	nd CSS			
CO3	Illustr	ate the 1	use of (	CGI and	l Perl p	rograms	s for di	fferent	types of	server s	ide app	licatio	ns	
CO4	Design	n and in	npleme	nt user	interac	tive dyn	namic v	veb bas	ed appli	cations.				
CO5	Demo	nsrtae a	pplicat	ions of	Angula	ar JS and	d JQue	ry for tl	ne given	problen	n			
					(	CO-PO-	PSO N	<b>Iappin</b>	g					
COs						P	os							
COS	1	2	3	4	5	6	7	8	9	10	11	12		
CO1						3	2							
CO2						3	2							
CO3						3	2							
CO4						3	2							
CO5						3	2							
Average						3	2							

Subject: (	COMPU'	TER G	RAPH	ICS WI	TH OP	EN GL				Subjec	t Code	: 22M	CA251
					(	Course (	Outcon	nes					
CO1	Apply	the fea	tures J	Query f	or the g	given we	eb base	d probl	em				
CO2	Demo	nstrate	the dev	elopme	nt of X	HTML	docum	ents usi	ng Java	Script a	nd CSS		
CO3	Illustra	ate the	use of (	CGI and	l Perl p	rogram	s for dif	ferent t	ypes of	server s	ide app	licatio	ns
CO4	Design	n and in	npleme	ent user	interac	tive dyr	namic w	eb base	ed appli	cations.			
CO5	Demo	nsrtae a	pplicat	ions of	Angula	ır JS an	d JQuei	ry for th	ne given	problen	n		
					(	CO-PO-	PSO M	<b>Iappin</b>	g				
COs						P	os						
COs	1	2	3	4	5	6	7	8	9	10	11	12	
CO1					3			2					
CO2					3			2					
CO3					3			2					
CO4					3			2					
CO5					3			2					
Average			_		3			2					

Subject: I	Data Mining and Business Intelligence	Subject Code: 22MCA252
	Course Outcomes	
CO1	Learn the concept of Data warehousing and OLAP	
CO2	:Understand storage and retrieval technique of data from DATA C	CUB
СОЗ	:Analyze different types of data and different preprocessing technology	niques.
CO4	Evaluate various Association algorithms and its applications.	
CO5	Apply different Classification technique.	
	CO-PO-PSO Mapping	
COg	Pos	



	1	2	3	4	5	6	7	8	9	10	11	12
CO1		3							2			
CO2		3							2			
CO3		3							2			
CO4		3							2			
CO5		3							2			
Average		3							2			

Subject: E	Enterpri	se Reso	urce Pla	anning.						Subjec	t Code	e: 22M	CA253	
					(	Course (	Outcon	nes						
CO1	Descr UDD		ut evolı	ution, c	haracte	ristics a	nd serv	ices in	SOA w	ith SOA	archite	cture,	WSDL, SOA	P and
CO2	: Analy	ze the S	SOA A	rchitect	ural sty	le, SOA	strate	gies, mo	odeling	web serv	vices			
CO3	<ul> <li>: Analyze the SOA Architectural style, SOA strategies, modeling web services</li> <li>: Design, implementing process of SOA in web service.</li> <li>: Apply the SOA operational style for the web services.</li> </ul>													
CO4	: Apply	y the SC	A oper	rational	style fo	or the w	eb serv	ices.						
CO5	: Apply	y the SC	A oper	ational	style fo	or the w	eb serv	ices.						
					(	CO-PO-	PSO M	<b>Tappin</b>	g					
COs						P	os							
COS	1	2	3	4	5	6	7	8	9	10	11	12		
CO1		2					2							
CO2		2					2							
CO3		2					2							
CO4		2					2							
CO5		2					2							
Average		2					2							

Subject: U	JSER IN	TERF	ACE D	ESIGN	1					Subjec	t Code	: 22MC	1254		
					C	ourse (	Outcor	nes		•					
CO1	Use the	e new t	technol	ogies th	at provi	de inter	ractive	devices	s and in	terfaces					
CO2	apply th	pply the process and evaluate UID.													
CO3	:under	understand Direct Manipulation and Virtual Environment													
CO4	:discuss	iscuss the command, natural languages and issues in design for maintaining Qos													
CO5	:persuac	ersuade user documentations and information search.  CO-PO-PSO Mapping													
					C	O-PO-	PSO N	<b>Iappin</b>	g						
COs						Po	OS								
COs	1	2	3	4	5	6	7	8	9	10	11	12			
CO1	3									3					
CO2	3									3					
CO3	3									3					
CO4	3									3					
CO5	3									3					
Average	3									3					

Subject: (	)ptimiza	tion Te	chniqu	es						Subjec	t Code	: 22M	CA255		
					(	Course (	Outcon	nes							
CO1	Use th	e new t	echnol	ogies th	at prov	ide inte	ractive	devices	s and in	terfaces					
CO2	apply th	ne proce	ess and	evaluat	te UID.										
CO3	:under	:understand Direct Manipulation and Virtual Environment													
CO4	:discuss	iscuss the command, natural languages and issues in design for maintaining Qos													
CO5	:persuade user documentations and information search.														
					(	CO-PO-	PSO M	<b>Iappin</b>	g						
COs						P	os								
COS	1	2	3	4	5	6	7	8	9	10	11	12			
CO1						2	2	2							
CO2						2	2	2							
CO3						2	2	2							
CO4						2	2	2							
CO5						2	2	2							
Average						2	2	2							

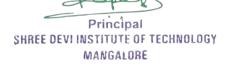
Subject: (	Cryptogr	aphy ar	nd Netv	work Se	curity					Subjec	t Code	: 22M	CA261		
					C	Course (	Outcor	nes							
CO1	:Ident	ify com	mon ne	etwork	security	vulnera	abilitie	s/attack	s;						
CO2	Unders	derstand the foundations of Cryptography and network security.  Inderstand encryption and decryption of messages using block ciphers													
CO3	:Unde	nderstand encryption and decryption of messages using block ciphers													
CO4	:Demoi	monstrate detailed knowledge of the role of encryption to protect data.  alyze Network Security Practice And System Security.													
CO5	: Analy	nalyze Network Security Practice And System Security.													
					C	O-PO-	PSO N	<b>Aappin</b>	g						
COs						Po	OS								
COS	1	2	3	4	5	6	7	8	9	10	11	12			
CO1			3	3											
CO2			3	3											
CO3			3	3											
CO4			3	3											
CO5			3	3											
Average			3	3											

Subject	Artificial Intelligence	Subject Code: 22MCA262
	Course Outcomes	
CO1	After studying this course, students will be able to: CO1: Acquisolving techniques - Symbolic knowledge representation to spesoftware agent	
CO2	: Comprehend on - different logical systems for inference over for particular inference algorithm working on a given problem speci	
CO3	Apply and Analyse AI technique to any given concrete problem	1
CO4	Interpret and Implement non-trivial AI techniques in a relatively	large system

					(	CO-PO-	PSO M	<b>Iappin</b>	g			
COs						P	os					
COS	1	2	3	4	5	6	7	8	9	10	11	12
CO1			3						3			
CO2			3						3			
CO3			3						3			
CO4			3						3			
Average			3						3			

Subject: 1	Mobile A	Applicat	ion De	velopm	ent					Subjec	t Code	: 22M	CA263	
					(	Course (	Outcor	nes						
CO1	: Illus	: Illustrate effective user interfaces that leverage evolving mobile device capabilities  Develop applications using software development kits (SDKs), frameworks and toolkits												
CO2	Develo													
CO3	: Esta	stablish various methods to integrate database and server-side technologies												
CO4	Design	gn and develop open source software based mobile applications												
CO5	Build a	ild and deploy competent mobile development solutions												
	•				(	CO-PO-	PSO N	<b>Iappin</b>	g					
COs						P	os							
COs	1	2	3	4	5	6	7	8	9	10	11	12		
CO1		3						3						
CO2		3						3						
CO3		3						3						
CO4		3						3						
CO5		3						3						
Average		3	_			_		3						

Subject: I	Distribut	ed oper	ating S	ystem						Subject	ct Code	e: 22MCA2	264	
					C	Course (	Outcon	ies						
CO1	Analy	se the b	asic O <sub>j</sub>	perating	Systen	n Struct	ture and	l conce <sub>l</sub>	pt of Pro	cess M	anagem	nent		
CO2	Analyse	e the gi	ven Sy	nchroni	zation/	Deadlo	ck prob	lem to	solve an	d arrive	at vali	d conclusio	ons.	
CO3	Analyse	Analyse OS management techniques and identify the possible modifications for the given problem contex												
CO4	Demon	emonstrate the working of basic commands of Unix environment including file processing 5												
CO5	Demonstrate the usage of different shell commands, variable and AWK filtering to the given problem													
					C	O-PO-	PSO N	<b>Iappin</b>	g					
COa							Pos							
COs	1	2	3	4	5	6	7	8	9	10	11	12		
CO1					3						2			
CO2					3						2			
CO3					3						2			
CO4					3						2		-	
CO5					3						2		=	
Average					3						2		-	



Subject: N	Natural I	Languag	ge Proc	essing						Subjec	et Code	22MCA2	265		
					C	ourse (	Outcor	nes							
CO1	Analy	se the b	oasic O	perating	Systen	n Struct	ture and	d conce	pt of Pr	ocess M	anagem	ent			
CO2	Analys	e the gi	ven Sy	nchroni	zation/ ]	Deadlo	ck prot	olem to	solve a	nd arrive	at vali	d conclusio	ons.		
CO3	Analys	Analyse OS management techniques and identify the possible modifications for the given problem contex													
CO4	Demon	nonstrate the working of basic commands of Unix environment including file processing 5													
CO5	Demon	emonstrate the usage of different shell commands, variable and AWK filtering to the given problem													
					C	O-PO-	PSO N	Mappin	g						
COa							Pos								
COs	1	2	3	4	5	6	7	8	9	10	11	12			
CO1	3									2					
CO2	3									2					
CO3	3									2					
CO4	3									2					
CO5	3									2					
Average	3									2					
													1		

Subject: DBN	MS LAB	ORATO	ORY							Subje	ct Code	e: 22M	CAL27	
					Cou	rse Out	comes			•				
CO1	Analys	se the ba	asic Op	erating	Systen	n Struct	ure and	d conce	ept of P	rocess M	lanagen	nent		
CO2	Analys	se the gi	ven Sy	nchron	ization	/ Deadlo	ock pro	blem t	o solve	and arri	ve at va	lid con	clusions.	
CO3	Analys		anagei	ment tec	chnique	es and id	lentify	the po	ssible r	nodificat	ions for	the giv	ven proble	
CO4	Demoi	nstrate t	he wor	king of	basic c	comman	ds of U	Jnix en	vironn	ent inclu	ıding fi	le proce	essing 5	
CO5	Demoi proble		he usaş	ge of di	fferent	shell co	mman	ds, vari	iable ar	d AWK	filterin	g to the	given	
				CO	-PO-P	SO Ma	pping							
CO							Pos							
COs	1	2	3	4	5	6	7	8	9	10	11	12		
CO1		2         3         4         5         6         7         8         9         10         11         12           3												
CO2				3		3								
CO3				3		3								
CO4				3		3								
CO5				3		3								
Average				3		3								
Subject: JAV	A PROC	GRAMN	IING I	LABOR	TORY	7				Subje	ct Cod	e: 22M	CAL28	
Course Outco	mes									•				
CO1	Analys	se the ba	asic Op	erating	Systen	n Struct	ure and	d conce	ept of P	rocess M	lanagen	nent		
CO2	Analys	se the gi	ven Sy	nchron	ization	/ Deadlo	ock pro	blem t	o solve	and arri	ve at va	lid con	clusions.	
CO3	Analys	se OS m	anagei	ment tec	chnique	es and ic	lentify	the po	ssible r	nodificat	ions for	the giv	ven proble	

Demonstrate the working of basic commands of Unix environment including file processing 5

CO3

CO4

context.



		he usag	ge of di	fferent s	hell co	mman	ds, vari	able an	d AWK	filterin	g to the	given
				CO-P	O-PSC	) Map	ping					
					Po	os						
1	2	3	4	5	6	7	8	9	10	11	12	•
			3								3	
			3								3	
			3								3	
			3								3	
			3								3	
			3								3	
											3	
							<u> </u>	<u> </u>	C.L.	ot Cal	01 2214	CA20
INAK				Carre	a a O 4 -				Subje	ct Coa	<b>e:</b> 22M	CA29
Analy	rea tha k	noie O	Inorotin				nd aona	ont of l	Droogs I	Monogo	mont	
			_					_				alucione
		anagei	nent tee	amique	s and ic	icitii y	the pos	551010 11	ilouiiicai	.10115-10	i the gr	ven prob
		he wor	king of	basic co	omman	ds of U	Jnix en	vironm	ent inclu	ıding fi	le proc	essing 5
Demon	ıstrate tl m	he usag	ge of di	fferent s	hell co	mman	ds, vari	able an	d AWK	filterin	g to the	e given
				CO-F	PO-PSO	) Map	ping					
					Po	os						
1	2	3	4	5	6	7	8	9	10	11	12	='
	3					3						
	3					3						
	3					3						
	3					3						
	3					3						
	3					3						
						5						
	IINAR  Analys Analys context Demor	INAR  Analyse the telephone Analyse OS montext.  Demonstrate telephone Demonstrate telephone Analyse OS montext.	INAR  Analyse the basic Context.  Demonstrate the worn Demonstrate the usage problem  1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	INAR  Analyse the basic Operatin Analyse OS management teccontext.  Demonstrate the working of Demonstrate the usage of diproblem  1 2 3 4 3 3 3 3 3 3 3 3 3 3 3	TINAR  Cour  Analyse the basic Operating System  Analyse the given Synchronization/  Analyse OS management techniques context.  Demonstrate the working of basic context.  Demonstrate the usage of different sproblem  CO-F  1 2 3 4 5 5 6 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6	TO-PO-PSO  TO-PO-PSO	TINAR  Course Outcomes  Analyse the basic Operating System Structure and Analyse the given Synchronization/ Deadlock process.  Demonstrate the working of basic commands of Understand the usage of different shell command problem  CO-PO-PSO Map  Pos  1 2 3 4 5 6 7  3 3 3 3 3 3  3 3 3 3  3 3 3 3 3	CO-PO-PSO Mapping   Pos   1	CO-PO-PSO Mapping	CO-PO-PSO Mapping   Pos   1	CO-PO-PSO Mapping  Pos  1 2 3 4 5 6 7 8 9 10 11  3 3	CO-PO-PSO Mapping

## **SEM 3**

Subject: I	Oata Ana	alytics u	ising P	ython						Subjec	t Code	e: 22M	CA31	
					C	Course (	Outcor	nes						
CO1	Demo	nstrate	basic d	ata anal	lytics pr	rinciples	and te	echniqu	es					
CO2	Apply	contro	l struct	ures the	concep	ts of inl	heritan	ce and	overload	ding for	a given	proble	m	
CO3	Perfor	m essei	ntial op	erations	s using	Numpy	and Pa	andas						
CO4	Struct	uring th	e data	in the d	ataset f	or a give	en prol	blem						
CO5	Demo	nstrate	the con	cepts o	f data v	isualiza	tion.							
					C	O-PO-	PSO N	<b>Aappin</b>	g					
Cos						Po	OS							
Cus	1	2	3	4	5	6	7	8	9	10	11	12		
CO1			3	3										
CO2			3	3										
CO3			3	3										
CO4			3	3										
CO5			3	3										
Average			3	3			_							

Subject: I	ОТ									Subjec	t Code	: 22M	CA32	
					(	Course (	Outcon	nes						
CO1	Analy	se the I	oT arcl	nitecture	e and de	esign al	ong wit	h functi	ional/co	mpute s	tack an	d data	manageme	ent
CO2	Apply	IOT ar	chitect	ure for	a given	probler	n							
CO3	Analy	se the a	pplicat	ion pro	tocol, tı	ansport	layer r	nethods	for the	given b	usiness	case.		
CO4	Analy	se the a												
CO5	Analy	se the a	rchitec	or the g	iven u	se case								
					(	CO-PO-	PSO M	<b>Iappin</b>	<u> </u>					
Con						P	os							
Cos	1	2	3	4	5	6	7	8	9	10	11	12		
CO1						3	3							
CO2						3	3							
CO3						3	3							
CO4						3	3							
CO5						3	3							
Average				-		3	3							

Subject: 1	Block cl	nain Tec	hnolog	У						Subjec	t Code	e: 22M	CA331	
					C	ourse (	Outcon	nes						
CO1	Unders	stand the	structi	ure of a	blockcl	nain net	works							
CO2	Design	and ana	alyze th	ne applio	cation									
CO3	Unders	stand ho	w blocl	k chain	systems	3								
CO4	Design	,build a	and dep	loy sma	art conta	acts		•				•	•	 _
CO5	Evalu	ate secu	rity,pri	vacy an	nd effici	ency								
					C	O-PO-	PSO N	<b>Iappin</b>	g					
Cos						Po	OS							
Cos	1	2	3	4	5	6	7	8	9	10	11	12		
CO1		3										3		
CO2		3										3		
CO3		3										3		
CO4		3										3		
CO5		3										3		
Average		3										3		

Subject: (	CLOUD	COMP	UTING	3						Subje	ct Cod	e: 22M
					(	Course (	Outcon	nes				
CO1	Underst	and the	struct	ure of a	blockc	hain net	tworks					
CO2	Design	and ana	alyze tł	ne appli	cation							
CO3	Underst	and ho	w bloc	k chain	system	S						
CO4	Design	build,	and dep	oloy sm	art cont	acts						
CO5	Evalua	ate secu	rity,pr	ivacy ar	nd effic	iency						
					(	CO-PO-	PSO M	<b>Iappin</b>	g			
Cos						P	os					
Cos	1	2	3	4	5	6	7	8	9	10	11	12
CO1						1			2	1		1
CO2						1			2	1		1
CO3						1			2	1		1
CO4						1			2	1		1
CO5						1			2	1		1
Average						1			2	1		1

Subject:	DIGITAL MARKETING	Subject Code: 22MCA333									
	Course Outcomes										
CO1											
CO2	Understand the cloud computing platforms, key technology drives environments	rs and cloud programming/software									
CO3	: Identify the need for cloud computing model and compare vario	us key enabling technologies.									
CO4	Design ,build and deploy smart contacts										
CO5	Analyze and choose an appropriate programming environment f	or building cloud applications.									
	CO-PO-PSO Mapping										

Cos						P	os					
Cos	1	2	3	4	5	6	7	8	9	10	11	12
CO1											3	3
CO2											3	3
CO3											3	3
CO4											3	3
CO5											3	3
Average											3	3

Subject: (	Object C	riented	Model	ing and	Design					Subjec	t Code	e: 22M	CA334	
					C	ourse (	Outcor	nes						
CO1		strate th		e progra	mming	constru	icts of	Java an	d OOP	concepts	to dev	elop Ja	iva programs for a	
CO2	Illustra compo		oncepts	s of gene	eralizati	on and	run tin	ne poly	morphis	m applio	cations	to dev	elop reusable	
CO3	Demon applica		ne usag	e of Pac	ckages,	Interfac	es, Ex	ception	s and M	ultithrea	ding in	buildi	ng given	
CO4	~ ~ ~	Enumer given pro		Wrappe	ers, Aut	o boxin	ıg, Col	lection	framew	ork and	I/O ope	erations	for effective codi	ng
CO5	•	nent the ited app						g using	Java ne	twork cl	asses f	or deve	eloping the	
					C	O-PO-	PSO N	<b>Iappin</b>	g					
Cos						P	os							
Cos	1	2	3	4	5	6	7	8	9	10	11	12		
CO1	3	3												
CO2	3	3												
CO3	3	3												
CO4	3	3												
CO5	3	3												
Average	3	3												

Subject: N	NOSQL									Subje	ct Cod	e: 22M	CA335			
					(	Course (	Outcon	nes								
CO1	Assimi	late fun	dament	al conc	epts in	the con	text of	a numb	er of di	fferent N	VOSQL	produ	ets			
CO2	Constru	ıct rede	fined lo	gical d	atabase	;										
CO3	Execute	nstruct redefined logical database ecute various CRUD operations ild a database system														
CO4	Build a	databa	se syste	m												
CO5	Use th	ne mong	goDB													
					(	CO-PO-	PSO M	<b>Iappin</b>	g							
Can						P	os									
Cos	1	2	3	4	5	6	7	8	9	10	11	12				
CO1		3					3									
CO2		3					3									
CO3		3					3									



CO4		3					3						
CO5		3					3						
Average		3					3						
Subject: A	dvance	d Java a	and J2E	EE						Subje	ct Cod	e: 22M	CA341
					(	Course (	Outcon	nes					
CO1	Apply	the cor	ncept of	f Servle	t and it	s life cy	cle to c	reate w	eb appl	ication			
CO2	Apply	JSP tag	gs and i	its servi	ces to	web app	lication	1.					
CO3	To stu	dy the	various	types o	of testin	ıg.							
CO4	Differe	entiate	betwee	n functi	ional te	sting an	d struc	tural te	sting				
CO5	Analyz testing	_	erform	ance of	fault b	ased tes	sting, pl	anning	and Mo	onitoring	g the pr	ocess, l	Documentation
						CO DO	DCO 1	Ionnin	~				
					(	CO-PO-		Iappin	g				
Cos	1	2	2	4		P	os			10	11	12	
	1	2	3	4	5			Iappin 8	g 9	10	11	12	
CO1	1	2	3	3	<b>5</b> 3	P	os			10	11	12	
	1	2	3		<b>5</b> 3 3	P	os			10	11	12	
CO1	1	2	3	3	5 3 3 3	P	os			10	11	12	
CO1 CO2	1	2	3	3	<b>5</b> 3 3	P	os			10	11	12	
CO1 CO2 CO3	1	2	3	3 3 3	5 3 3 3	P	os			10	11	12	

Subject:	Introduct	tion to I	Oot Ne	t framev	work fo	r applic	ation d	evelopr	nent	Subje	ct Code	e: 22M	CA342
					C	Course (	Outcon	nes					
CO1	Unders	tand C#	and cl	ient-ser	ver con	cepts us	sing .N	et Fram	e Work	c Compo	nents		
CO2	Apply of	delegate	es, ever	nt and e	xception	n handli	ing to i	ncorpoi	ate wit	h ASP, V	Win Fo	rm, AD	O.NET
CO3	Analyz	e the us	e of .N	et Com	ponents	depend	ding on	the pro	blem s	tatement			
CO4	Implem	ent & d	levelor	a web	based a	nd Con	sole ba	sed app	lication	with D	atabase	connec	ctivity
	1							- 11					
	I				C	CO-PO-	PSO N	Iappin	g				
<b>C</b>						Po	os		<u> </u>				
Cos	1	2	3	4	5	6	7	8	9	10	11	12	
CO1	3										3		
											3		
CO2	3												
CO2 CO3	3										3		
	+										3 3		

Subject: 1	Knowled	lge Engi	ineerin	g						Subjec	t Code	: 22M	CA343			
					(	Course (	Outcon	nes								
CO1	Unders	tand C#	and cl	ient-ser	ver cor	ncepts u	sing .N	et Fran	ne Work	Compo	nents					
CO2	Apply of	delegate	s, ever	nt and e	xceptio	n handl	ing to i	ncorpo	rate with	ASP, V	Vin For	m, AD	O.NET.			
CO3	Analyz	Analyze the use of .Net Components depending on the problem statement.  Implement & develop a web based and Console based application with Database connectivity														
CO4	Implen	nent & d	levelop	a web	based a	ınd Con	sole ba	sed app	lication	with Da	tabase	conne	ctivity			
CO5																
					(	CO-PO-	-PSO N	<b>Iappin</b>	g							
Cos						P	os									
Cus	1	2	3	4	5	6	7	8	9	10	11	12				
CO1					3			3								
CO2					3			3								
CO3					3			3								
CO4					3			3								
CO5					3			3								
Average					3			3								

Subject: S	oftware	e Testing	g]]							Subjec	ct Code	: 22M	CA344		
					(	Course (	Outcor	nes							
CO1	Acqui	ire knov	vledge	of basic	princip	ples and	knowl	ledge of	softwa	re testin	g and d	ebuggi	ng and test cases.		
CO2		Will be able to understand the perceptions on testing like levels of testing, generalized pseudo code and with related examples.													
CO3	To stu	Γο study the various types of testing													
CO4	Differ	Differentiate between functional testing and structural testing.													
CO5	_	Analyze the performance of fault based testing, planning and Monitoring the process, Documentation testing													
					(	CO-PO-	PSO N	<b>Iappin</b>	g						
<b>C</b>						Po	OS								
Cos	1	2	3	4	5	6	7	8	9	10	11	12			
CO1	3	3													
CO2	3	3													
CO3	3	3													
CO4	3	3													
CO5	3	3													
Average	3	3													

Subject: V	irtual R	Reality								Subjec	ct Code	: 22M	CA345		
					(	Course (	Outcon	nes							
CO1	Acqui	re knov	vledge	of basic	princip	oles and	l knowl	edge of	softwa	re testin	g and d	ebuggi	ng and test cases.	•	
CO2		Will be able to understand the perceptions on testing like levels of testing, generalized pseudo code and with related examples.													
CO3	To stu	To study the various types of testing													
CO4	Differ	Differentiate between functional testing and structural testing.													
CO5		Analyze the performance of fault based testing, planning and Monitoring the process, Documentation testing													
					(	CO-PO-	PSO N	<b>Iappin</b>	g						
Cos						P	os								
Cus	1	2	3	4	5	6	7	8	9	10	11	12			
CO1			3						3						
CO2			3						3						
CO3			3						3						
CO4			3						3						
CO5			3						3						
Average			3						3						

Subject: I	ata Ana	lytics I	_ab wit	h Mini-	project					Subjec	ct Cod	e: 22M	CA
					C	Course (	Outcor	nes					
CO1	Develo	op pyth	on pro	gram to	perform	n search	n/sort o	n a giv	en data	set			
CO2	Demo	nstrate	object	orientec	l princij	ples							
CO3	Demo	Demonstrate data visualization using Numpy for a given problem											
CO4	Demo	Demonstrate regression model for a given problem											
CO5	Design	n and de	evelop	an appl	ication	for the	given p	roblem					
					C	CO-PO-	PSO N	<b>Iappin</b>	g				
Cos						P	os						
Cos	1	2	3	4	5	6	7	8	9	10	11	12	
CO1	3											3	
CO2	3											3	
CO3	3											3	
CO4	3											3	
CO5	3											3	
Average	3											3	

Subject	: IoT Lab with Mini Project	Subject Code: 22MCAL37
	Course Outcomes	
CO1	Apply the concept of Servlet and its life cycle to crea	ate web application.
CO2	Apply IOT techniques for a given problem	
CO3	Analyse the application protocol, transport layer met	thods for the given business case.
CO4	Design and develop an application for the given prob	plem for the societal/industrial problems
CO5	Develop python program by applying suitable featur	e for the given problem and verify the output

					C	O-PO-	PSO M	Iapping	g			
Cos						P	os					
Cos	1	2	3	4	5	6	7	8	9	10	11	12
CO1						3				3		
CO2						3				3		
CO3						3				3		
CO4						3				3		
CO5						3				3		
Average						3				3		

Subject: S	OCIAL	PROJI	ЕСТ							Subje	ct Code	e: 22M	CAL38
					(	Course	Outcon	nes					
CO1	Apply	the co	ncept o	f Servle	et and it	ts life cy	cle to	create w	eb app	olication.			
CO2	Apply	/ IOT te	chniqu	es for a	given	problem	1						
CO3	Analy	se the a	applicat	tion pro	tocol, t	ranspor	t layer ı	nethods	s for th	e given b	usiness	case.	
CO4	Desig	n and d	evelop	an appl	ication	for the	given p	roblem	for th	e societal	/industr	rial pro	blems
CO5	Devel	Develop python program by applying suitable feature for the given problem and verify the output											
	•				(	CO-PO-	PSO M	<b>Lappin</b>	g				
C						P	os						
Cos	1	2	3	4	5	6	7	8	9	10	11	12	
CO1							3				3		
CO2							3				3		
CO3							3				3		
CO4							3				3		
CO5							3				3		
Average							3				3		
Subject: Ir	nternshi	p								Subject	Code:	22MC	A39
		_			(	Course (	Outcon	nes					
CO1	Analy	se the r	eal-tim	e indus	try/rese	arch wo	ork envi	ironmer	nt with	emphasi	s on org	ganizati	ional structure/job
						function							
CO2	Devel	op appl	ication	s using	moderr	n tools a	nd tech	nologie	es.				
CO3	Demo	nstrate	self-lea	rning c	apabilit	ties with	an eff	ective r	eport a	nd detail	ed prese	entatio	n.
					(	CO-PO-	PSO M	<b>Tappin</b>	g				
Cos								Pos					
Cus	1	2	3	4	5	6	7	8	9	10	11		12

CO1

CO2

CO3

Average

3

3

3

3

3

3

## SEM 4

Subject: I	Deep Lea	arning								Subjec	ct Code	e: 22M	CA411		
					C	Course (	Outcon	ies							
CO1	Unders	tand the	e main	fundam	entals t	hat driv	e deep	learning	g						
CO2	Be able	Be able to build train and apply fully connected deep neural networks													
CO3	Know l	Know how to implement efficient CNN Or RNN													
CO4	Unders	Understand the key features in a neural networks architecture													
CO5		Juderstand the key reatures in a neural networks architecture													
					C	O-PO-	PSO M	Iapping	3						
Cos						P	os								
Cos	1	2	3	4	5	6	7	8	9	10	11	12			
CO1	3						3								
CO2	3						3								
CO3	3						3								
CO4	3						3								
CO5	3						3								
Average	3						3								

Subject: E	Big Data	Analyti	ics							Subjec	ct Code	e: 22M	CA412		
					C	ourse C	Outcon	nes							
CO1	Identition tools.	fy the b	usiness	proble	m for a	given c	ontext	and fra	me the o	objective	es to so	lve it tl	rough data	a analytic	
CO2	Apply	various	s algori	thms fo	r handli	ing larg	e volu	mes of	data.						
CO3	Illustrate the architecture of HDFS and explain functioning of HDFS clusters.														
CO4	Analy	Analyse the usage of Map-Reduce techniques for solving big data problems.  Conduct experiment with various datasets for analysis / visualization and arrive at valid conclusions.													
CO5	Condu	ict expe	riment	with va	arious da	atasets 1	for ana	lysis / v	isualiza	tion and	d arrive	at vali	d conclusio	ons.	
					C	O-PO-	PSO N	<b>Iappin</b>	<b>5</b>						
Cos						Po	OS								
Cos	1	2	3	4	5	6	7	8	9	10	11	12			
CO1											3	3			
CO2											3	3			
CO3											3	3			
CO4											3	3			
CO5											3	3			
Average											3	3			

Subject	: Wireless Ad Hoc Networks	Subject Code: 22MCA413								
	Course Outcomes									
CO1	Apply the concept and usages web based programming	techniques.								
CO2	Learning and Developing XHTML documents using Jav	vaScript and CSS								
CO3	To be familiar in the use of CGI and Perl programs for d	lifferent types of server side applications.								
CO4	Design and implement user interactive dynamic web base	sed applications.								
CO5	V 1									
	CO-PO-PSO Mappin	ng								

Coa						P	os					
Cos	1	2	3	4	5	6	7	8	9	10	11	12
CO1				3								3
CO2				3								3
CO3				3								3
CO4				3								3
CO5				3								3
Average				3								3

Subject: S	oftware	Project	Manag	gement						Subject	ct Code	22M	CA414	
					C	ourse (	Outcon	ies						
CO1	Unders	stand the	e practi	ces and	method	ls for su	iccessfi	ul softw	are pro	ject mar	ageme	nt		
CO2	Identify techniques for requirements, policies and decision making for effective resource management													
CO3	: Appl	: Apply the evaluation techniques for estimating cost, benefits, schedule and risk												
CO4	: Devis	se a fran	nework	for soft	tware pr	oject m	nanager	nent pla	an for a	ctivities	, risk, m	onitori	ng and con	trol
CO5	: Devis	se a fran	nework	to man	age peo	ple								
					C	O-PO-	PSO M	Iapping	<u> </u>					
Cos						Pe	os							
Cos	1	2	3	4	5	6	7	8	9	10	11	12		
CO1		3								3				
CO2		3								3				
CO3		3								3				
CO4		3								3				
CO5		3								3				
Average		3								3				

Subject: S	Software	Define	d Netw	orks						Subjec	t Code	: 22M	CA415	
					C	Course (	Outcon	ies						
CO1	Unders	tand the	e practi	ces and	method	ds for su	iccessf	ul softw	are pro	ject man	agemei	nt		
CO2	Identify	Identify techniques for requirements, policies and decision making for effective resource management												
CO3	: Apply	Apply the evaluation techniques for estimating cost, benefits, schedule and risk												
CO4	: Devis	Devise a framework for software project management plan for activities, risk, monitoring and control												
CO5	: Devis	Devise a framework to manage people												
					C	O-PO-	PSO M	<b>Iappin</b>	9					
Cos						P	os							
Cos	1	2	3	4	5	6	7	8	9	10	11	12		
CO1		3						3						
CO2		3						3						
CO3		3						3						
CO4		3						3						
CO5		3						3						
Average		3	_				_	3						

Subject: I'	T Projec	t Mana	gement	t						Subjec	t Code	e: 22M	CA421	
					C	Course (	Outcon	nes						
CO1	Unders	tand the	practi	ces and	method	ds for su	iccessf	ul softw	are proj	ject IT 1	nanage	ment		
CO2	Identify	y techni	ques fo	r requii	ements	, policie	es and o	decision	n making	g for effe	ective r	esourc	e management	
CO3	: Apply	Apply the evaluation techniques for estimating cost, benefits, schedule and risk												
CO4	: Devis	Devise a framework for software project management plan for activities, risk, monitoring and control												-
CO5	: Devis	: Devise a framework to manage people												
					C	O-PO-	PSO M	<b>Lappin</b>	g					
Cos						Po	os							
Cus	1	2	3	4	5	6	7	8	9	10	11	12		
CO1				3	3									
CO2				3	3									
CO3				3	3									
CO4				3	3									
CO5				3	3									
Average			_	3	3									

Subject: S	Semantic	Web a	nd Soc	ial Netv	vorks					Subje	ct Cod	e: 22M	CA4
					(	Course (	Outcon	ies					
CO1	Underst	and the	e basics	s of sem	antic w	eb and	social 1	network	S				
CO2	Underst	and the	e electr	onic sou	irce for	networ	k analy	rsis					
CO3	Modelii	Modeling and aggregating sociak network data											
CO4	Develo	p social	semar	tic appl	lication	S							
CO5	Evaluat	e web l	pased s	ocial ne	twork a	and onto	ology						
					C	O-PO-	PSO N	Iapping	3				
Cos	Pos												
Cos	1	2	3	4	5	6	7	8	9	10	11	12	
CO1									3	3			
CO2									3	3			
CO3									3	3			
CO4									3	3			
CO5									3	3			
Average									3	3			

Subject: (	Game De	esigning	3							Subje	ct Cod	e: 22M	CA423
					(	Course	Outcon	ies					
CO1	Gain aı	n under	standin	g termiı	nology	of game	e desigr	1					
CO2	Demon	istrate a	deep u	ndersta	nding t	he princ	ciples o	f game	design				
CO3	Demonstrate the basic principle requires to produce games												
CO4	Explain game development theory and architecture												
CO5	Unders	tanging	the de	signing	concep	ots							
					C	CO-PO-	-PSO M	<b>Iappin</b>	g				
Cos						P	os						
Cos	1	2	3	4	5	6	7	8	9	10	11	12	



CO1	3					3		
CO2	3					3		
CO3	3					3		
CO4	3					3		
CO5	3					3		
Average	3					3		

Subject: A	Agile Te	chnolog	gy							Subjec	t Cod	e: 22M	CA424	_
					C	ourse (	Outcon	nes						
CO1	Fundan	nental o	of agile	technol	logy									
CO2	Explain	agile p	orincipl	es										
CO3	Apply scrum principles													
CO4	Apply practices of XP and incremental design													
CO5	Reduce	source	delive	ry										
					C	O-PO-	PSO M	<b>Iappin</b>	g					
Con						Po	OS							
Cos	1	2	3	4	5	6	7	8	9	10	11	12		
CO1			3									3		
CO2			3									3		
CO3			3									3		
CO4			3									3		
CO5			3									3		
Average			3									3		

Subject: S	Software	Metric	s & Qu	ality As	ssurance	e				Subjec	ct Cod	e: 22M	CA425
					C	ourse (	Outcon	ies					
CO1	Describ	e funda	amental	concet	s of sof	tware q	uality a	ssuran	ce				
CO2	Explore	test pl	anning	and its	manage	ement							
CO3	Understand fundamentalconcepts of software automation												
CO4	Demons	strate s	oftware	quality	tools a	ınd anal	lyze the	ir effec	tiveness	S			
CO5	Apply s	seleniur	n autor	nation t	ool for	testing	web ba	sed app	lication	-			
					C	O-PO-	PSO M	Iappin	3				
Con	Pos												
Cos	1	2	3	4	5	6	7	8	9	10	11	12	
CO1						3					3		
CO2						3					3		
CO3						3					3		
CO4						3					3		
CO5		_				3					3		
Average						3					3		

Subject: T	ECHNI	CAL S	EMINA	AR						Subje	ct Code	e: 22M	CA43
					C	ourse (	Outcom	ies					
CO1	Describ	e funda	amenta	concet	s of sof	tware q	uality a	ssuranc	ce				
CO2	Explore	e test pl	anning	and its	manage	ement							
CO3	Unders	tand fui	ndamer	ıtalconc	epts of	softwar	e auton	nation					
CO4	1			_		ınd anal	•						
CO5	Apply s	seleniur	n autor	nation t		testing				1			
					C	:O-PO-	PSO M	<b>Lapping</b>	g				
Cos						Po	OS						
Cus	1	2	3	4	5	6	7	8	9	10	11	12	
CO1	3 3												
CO2	3 3												
CO3	3						3						
CO4	3						3						
CO5	3						3						
Average	3						3						
Subject: P	ROJEC	T WOR	RK PH	ASE 2						Subje	ct Code	e: 22M	CA44
					C	ourse (	Outcom	ies					
			amenta			tware q	uality a	ssuranc	ce				
CO1													
CO1 CO2	Explore	e test pl											
CO2 CO3	Explore	e test pl				ement softwar	e auton	nation					
CO2 CO3 CO4	Explore Unders Demon	e test pl tand fur strate se	ndamer oftware	talconc quality	epts of tools a	softwar ınd anal	yze the	ir effec					
CO2 CO3	Explore Unders Demon	e test pl tand fur strate se	ndamer oftware	talconc quality	epts of tools a	softwar and anal testing	yze the	ir effec sed app	lication				
CO2 CO3 CO4	Explore Unders Demon	e test pl tand fur strate se	ndamer oftware	talconc quality	epts of tools a	softwar ınd anal	yze the	ir effec sed app	lication				
CO2 CO3 CO4 CO5	Explore Unders Demon Apply s	e test pl tand fur strate se seleniur	ndamer oftware n autor	talconc quality	epts of tools a ool for	softwar and anal testing	yze the web bas <b>PSO</b> M	ir effec sed app lapping	lication g	1			
CO2 CO3 CO4	Explore Unders Demon	e test pl tand fur strate se	ndamer oftware	quality nation t	epts of tools a	softwar and anal testing v	yze the web bas <b>PSO</b> M	ir effec sed app lapping	lication		11	12	
CO2 CO3 CO4 CO5	Explore Unders Demon Apply s	e test pl tand fur strate se seleniur	ndamer oftware n autor	quality nation t	epts of tools a ool for	softwar and anal testing v O-PO-	yze the web bas PSO M	ir effectsed applications in applications applications applications are set of the set o	lication g	1	11	12	
CO2 CO3 CO4 CO5 Cos	Explore Unders Demon Apply s	e test pl tand fur strate se seleniur	ndamer oftware n autor	quality nation t	epts of tools a ool for	softwar and anal testing v O-PO-	yze the web bas PSO M	ir effectsed appliapping  8 3 3	lication g	1	11	12	
CO2 CO3 CO4 CO5 Cos	Explore Unders Demon Apply s	e test pl tand fur strate se seleniur	ndamer oftware n autor	quality nation t	epts of tools a ool for	softwar and anal testing v O-PO-	yze the web bas PSO M	ir effectsed applications in applications applications applications are set of the set o	lication g	1	11	12	
CO2 CO3 CO4 CO5  Cos Cos CO1 CO2	Explore Unders Demon Apply s	e test pl tand fur strate se seleniur	ndamer oftware n autor	quality nation t	epts of tools a ool for	softwar and anal testing v O-PO-	yze the web bas PSO M	ir effectsed appliapping  8 3 3	lication g	1	11	12	
CO2 CO3 CO4 CO5  Cos CO1 CO2 CO3	Explore Unders Demon Apply s	e test pl tand fur strate se seleniur	ndamer oftware n autor	quality mation t	epts of tools a ool for	softwar and anal testing v O-PO-	yze the web bas PSO M	sed apping  8 3 3 3	lication g	1	11	12	