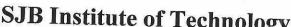




||Jai Sri Gurudev || Sri Adichunchanagiri Shikshana Trust ®









No. 67, BGS Health & Education City, Dr. Vishnuvardhana Road, Kengeri, Bangalore-560060. **Department of Civil Engineering**

Course Outcomes and CO-PO-PSO Articulation Matrix - Batch 2017-21

Semester-I/II

Subject:	Dieme	mis of C	vii en	ginee	ring a					Sub	ject C	ode:17	CV13	3/24	
	1					Cour	rse Ou	tcome	S						
CO1	its si	erstand ignifican	variou ices	s field	ls of C	ivil Er	nginee	ring, Ir	nporta	nce of	Infras	tructur	al De	velopm	ent &
CO2	Dete	ermine tl	ne res	ultant	of giv	en for	ce sys	tems a	ind an	alyzing	g bodie	es with	roug	h surfa	ice o
CO ₃	Com	pute the	react	ive for	ces in	heams	&r tha	offo of	41 1			0.2000 100	03.176627		
CO4	Loca	pute the C	entroi	d & co	mnute	Mom	ent of	Inortio	unat d	evelop	as a re	esult of	the e	xternal	loads
CO5	Cate	gorize th	ie var	ious tv	nes of	motio	n of be	dies o	of Re	gular &	Built	-up Se	ctions		
		×			C	O-PO	-PSO	Mappi	na mu	strating	g throu	igh nur	nerica	ıl probl	ems
COs		Also No. 1					Os	парр			-			DOO	
COs	1	2	3	4	5	6	7	8	9	10	11	10		PSOs	
CO1	2					-	-	0	9	10	11	12	1	2	3
CO ₂	3	3													
CO3	3	3		-					- 13						
CO4	3	3													
CO5	2	2													
											1			1	

Semester-III

Subject:	Engin	eering	Mathe	ematics	i-III					Sub	iect C	ode:17	MAT	31	
						Cou	rse O	utcom	es		,,,,,,	040.17	IVII I I	1	
CO1	Kno	w the	use ation.	of per	riodic	signal	s and	Fouri	er ser	ies to	analy	ze cire	cuits	and	syster
CO2	Exp	lain the	ne gen	eral ling	near sy	ystem ransfor	theory	for c	ontinu	ous -	time s	ignals	and o	ligita	lsign
CO3	Emp	oloy ap	propri	ate nur	nerical	metho	ds to s	solve a	laehrai	ic and	rongoo	ndenta	1		
CO4	App	ly Gie	ensin	eorem,	Diver	gence gravitat	theore	m and	Stokes	theore	m in v	ariona	applic	cations	s in tl
	Dete	rmine	the ex	tramala	of f		1				Proble	III.			
CO5	Cum	ZC IIIC	COHCE	pis or	, syntl	onal ar nesis ar	nd the	ır varia mizati	ations on of d	in the	applie	for calcations	culus of cor	of var nmun	iation icatio
	Cum	ZC IIIC	COHCE	pis or	, syntl	onal ar nesis ar CO-PO	nd then nd opti -PSO	ır varia mizati	ations on of d	in the	applie	atione	of cor	nmur	nicatio
COs	Cum	ZC IIIC	COHCE	pis or	, syntl	onal ar nesis ar CO-PO	nd the	r varia mizatio Mapp	ations on of d	in the ligital o	application	ations .	of cor	PSO	nicatio
	syste	ems, de	ecision	theory	y, synth	onal arnesis ar	nd then nd opti -PSO Os	ır varia mizati	ations on of d	in the	applie	ations	of cor	nmur	nicatio
COs	syste	ems, de	ecision	theory	y, synth	onal arnesis ar	nd then nd opti -PSO Os	r varia mizatio Mapp	ations on of d	in the ligital o	application	ations .	culus conference of conference	PSO	nicatio
COs CO1	syste	2 2	ecision	theory	y, synth	onal arnesis ar	nd then nd opti -PSO Os	r varia mizatio Mapp	ations on of d	in the ligital o	application	ations .	culus con cor	PSO	nicatio
COs CO1 CO2	syste	2 2 2	ecision	theory	y, synth	onal arnesis ar	nd then nd opti -PSO Os	r varia mizatio Mapp	ations on of d	in the ligital o	application	ations .	culus (confidence)	PSO	nicatio
COs CO1 CO2 CO3	1 3 3 3 3 3	2 2 2 2	ecision	theory	y, synth	onal arnesis ar	nd then nd opti -PSO Os	r varia mizatio Mapp	ations on of d	in the ligital o	application	ations .	culus (cof cor	PSO	nicatio

Subject:	Streng	th of N	Materia	ls	2 100					Subj	ect Co	de: 17	CV32		
					161	Cour	rse Ou	tcome	s						
CO1	Unde (Con	erstand pressi	l the st ion, ten	rength sion, s	and bhear, b	ehavio ending	or of v	arious	struct	ural el	ement	s for th	he app	olied f	orces
CO2	Evalu	uate th	e behav iderstar	vior an	d stren	gth of	structu	ıral ele	ments	under	the act	ion of c	compo	und st	resse
CO3	Maxi		or mini				f the n	nateria	for th	e appl	ied loa	ds (ber	nding,	shear	stres
CO4	Inter	oret th	e basic	conce	ot of v	ertical	structu	ral ele	ments	(colum	ns and	etrute)			200
					(CO-PO	DCO	3.5		Colum	iis and	Suuis	•		
					•		-rou	Mapp	ing						
COs						70720	Os	Mapp	ing					PSOs	
COs	1	2	3	4	5	70720		Mapp 8	ing 9	10	11	12	1	PSOs 2	_
COs	1 2	2	3	4	nov	P	Os			10	11	12	1 2	PSOs	
	1 2	2	3	4	nov	P	Os			10	11	12	1 2 2	PSOs	
CO1	1 2		3	4	nov	P	Os			10	11	12	2	PSOs	3
CO1	1 2 2			4	nov	P	Os			10	11	12		PSOs	

Subject:	Fluid	Mechan	ics							Subj	ect Co	de: 17	CV33		
				All T		Cou	rse Ou	tcome	S						
CO1	Und	erstand	funda	mental	prope	rties of	fluids	and fl	uid Co	ntinuu	m		-14		
CO2	Eva	luate the	appli	ied pre	ssure	on the						tatic co	onditio	ons of	fluids
CO3		ly princ					presen	t kinen	natic c	oncept	s relate	d to flu	ıid flo	w	
CO4	Forr	nulate tl	ne flow	v equat	tion ba	sed on	the Be	rnoull	i's pri	nciple					
CO5		rmine t									irs				
						CO-PC									
COs						P	Os							PSOs	
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2	
CO1	2								W.				TT	2	
CO2	2	1					THE S							2	
CO3		2					T H					511		1	
CO4		2												2	
CO5	2	2	1									1		2	T
Average	2	1.75	1									1		1.8	

Subject: E	Basic S	Survey	ing							Subj	ect Co	de: 17	CV34		
						Cou	rse Ou	tcome	S						
CO1	Und	erstan	ding fu	ındame	ental p	rinciple	es of C	eodeti	cs						
CO2										survey	ing pr	oblem	S.		
CO3										or surve					
CO4										l volun					
)-PSO			<u>~ 18 - 48 - 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2</u>	2400				
COs						P	Os							PSOs	0
COS	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	2											1	2	2	
CO2	2	2												2	
CO3	2			2										1	
CO4	2	2				1	3	1					1	1	
Average	2	2		2			3	1				1	1.5	1.5	

Page 2 of 21

Subject:	Engine	ering	Geolog	gy						Subj	ect Co	de: 17	CV35		
			e e			Cou	rse Ou	tcome	S						
CO1	Appl	y the k	nowle	dge of	geolog	gy and	its role	in Ci	vil Eng	gineerin	າອ				133
CO ₂	Utiliz	zation	of eartl	ı's ma	terials	such a	s mine	ral, roo	cks and	l water	in civ	il engin	eering	practi	ces.
CO3			natura									- 0		, P	
CO4									tools in	1 grour	d wate	er explo	ration		
CO5	Selec	t the a	ppropr	iate bu	ilding	materi	als for	constr	uction	<i>G</i>	200				
)-PSO							10.19	
COs					Anne Carre	P	Os				1150			PSOs	
COS	1	2	3	4	5	6	7	8	9	10	11	12	1	2	
CO1	2	N N											1		
CO2	2					1	1						1	1	
CO3	2		10.000										1		
CO4	2						1						•	1	
CO5	2														
Average	2					1	1						1	1	

Subject:	Buildi	ng Mat	terial a	nd Cor	struct	ion				Subj	ect Co	de:17	CV36		
						Cou	rse Ou	tcome	S	-			W 35.340		
CO1		lop kr		ge of	materi	al scie	nce ar	nd beh	avior	of vari	ous bu	ilding	materi	als us	sed in
CO2	Ident	ify the	constr	uction	mater	ials rec	uired t	for the	assign	ed wor	k.				
CO3												t, lime	and co	ncrete	etc.
CO4										lurabili					
					(CO-PC	-PSO	Mapp	ing						
COs						P	Os							PSOs	
COS	1	2	3	4	5	6	7	8	9	10	11	12	1	2	
CO1	2												2		
CO2	2						1						2	1	
CO3	2												1		
CO4	2											1		1	
Average	2						1					1	1.66	1	

Subject: 1	Buildin	ng Mat	erial L	aborat	ory					Subj	ect Co	de: 17	CVL3	7	
						Cou	rse Ou	tcome	s						
CO1										tics to s				f build	ling
CO2		nate the		iess an	d impa	ict stre	ngth o	fvario	us met	als sucl	n as m	ild stee	l, alum	inum,	si.
CO3	Evalu	ate the	physi	cal pro	perties	s of ag	gregate	es and	their in	npact c	n cons	structio	n Indu	stry.	
					(CO-PC	-PSO	Марр	ing						
CO-						P	Os							PSOs	
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	2	2		1				2	3				2		
CO2	2	2		1				2	3				2		
CO3	2	2		1				2	3				2		
Average	2	2		1				2	3				2		

Subject:	Surve	ying L	abora	tory						Subi	ect Co	do 1	CVL3	Q	
	1940.2					Cou	rse Ou	tcome	e e	Bubj	cci cc	de. 1	CVLS	0	
CO1	Appl	y the b	pasic p	rincin	les of en	ginee	ring su	rvevin	a for li	200 00	-d on a	.1		**	
CO2	Com	prehen	d effe	ctively	field p	rocedi	ires rec	mired	for a n	rofessi	onel a	uiar m	easurei	nents.	144
CO3	Choc	se the	techni	ques,	skills an	d con	vention	al sur	veying	instru	ments i	necess	ary for	engine	erin
	·				C	O-PC)-PSO	Марр	ing						-
COs						75.10	Os							PSOs	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO ₁	2	1			1	1							1	1	
CO ₂	2	1			1	1						-	1	1	
COM					-						2.2		1 1	1 1	
CO3	2	1			2	1							2	2	

Semester-IV

Subject:]	Engine	ering	Mather	natics-	·IV					Subj	ect Co	de:17N	AAT4	1	
	- 100					Cou	rse Ou	tcome	S		7.1				
CO1			and sec ultister					equatio	ns aris	sing in	flow p	roblem	s usin	g singl	e
CO2	Solv polar syste	r coord	lems of	f quant systems	tum me s and L	echanic Legrenc	es emp dre's po	loying olynom	Besselials re	l's func lating t	tion re	lating t rical po	o cylin olar co	ndrical ordina	te
CO3	theo	ry and	d the an electro eory fl	magne	tic the	ory De	scribe	confor	mal ar	nd bilin					
CO4	Solv joint	e prob proba	lems or bility d	n proba listribu	ability tions a	distrib ind sto	utions	relatin	g to di	gital si	gnal pr vith mu	ocessii Iltivaria	ng, det ate cor	termine relatio	n
CO5	or re	jecting	alidity g the hy	pothes	sis, def	ine tra	nsition		bility r						
	proo	icilis i	oratea t												
	proo	icilis i	ciatoa		(CO-PO	-PSO	Mapp	ing	*					
COs	proo	icins i	Clutou		C		Os Os	Mapp	ing	*				PSOs	
COs	1	2	3	4	5		-	Mapp 8	ing 9	10	11	12	1	PSOs 2	_
COs				4		P	Os			10	11	12	1		_
	1	2		4		P	Os			10	11	12	1		_
CO1	1 3	2 2		4		P	Os			10	11	12	1		_
CO1	1 3 3	2 2 2		4		P	Os			10	11	12	1		_
CO1 CO2 CO3	1 3 3 3	2 2 2 2		4		P	Os			10	11	12	1		3

Subject: A	nalys	is of D	etermi	inate S	tructur	es			211100	Subj	ect Co	de:170	CV42		
						Cou	rse Ou	tcome	s						
CO1	Dete	ermine	the fo	rces in	deterr	ninate	trusses	by me	ethod o	f joints	s and s	ections			
CO2	Solv metl		he def	lection	of can	tilever	, simpl	y supp	orted a	and ove	erhang	ing bea	ms by	differ	ent
CO3		ly the frame		princi	ples a	nd ener	rgy the	orems	to dete	ermine	the de	flection	s of tr	usses a	and
CO4	Dete	ermine	the str	ress res	sultants	s in arc	hes an	d cable	es.						
CO5	Con	struct	Influer	nce Lin	e Diag	gram fo	or the n	noving	loads.	i					
					(CO-PO	-PSO	Марр	ing						
00						P	Os							PSOs	ž
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	3	3											2		
CO2	3	3											2		
CO3	3	3											2		
CO4	3	3											2		
CO5	3	3											2		
Average	3	3		N.									2		

Course Outcomes Course Outcomes Apply dimensional analysis to develop mathematical modeling and compute the parameters under different conditions Cos Design the open channels of various cross sections including economical channel sections. Cos Cos Design turbines for the given data, and to know their operation characteristics under different conditions COS PO-PSO Mapping COS POS PSO PSO PSO Mapping COS PSO PSO PSO PSO PSO PSO PSO PSO PSO P		:V43	e: 170	ct Co	ıbje	Su								raulics	d Hyd	Applie	Subject:
Apply dimensional analysis to develop mathematical modeling and compute the parame values in prototype by analyzing the corresponding model parameters Design the open channels of various cross sections including economical channel section. Apply Energy concepts to flow in open channel sections, Calculate Energy dissipation, CO4 Compute water surface profiles at different conditions Design turbines for the given data, and to know their operation characteristics under different conditions CO5 PO-PSO Mapping CO6 PO-PSO Mapping CO7 PO 2 2 3 4 5 6 7 8 9 10 11 12 1 2 CO7 PO 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		Se mayers		1100			S	come	e Ou	our	Co						
CO3 Apply Energy concepts to flow in open channel sections, Calculate Energy dissipation, CO4 Compute water surface profiles at different conditions CO5 Design turbines for the given data, and to know their operation characteristics under different conditions CO6 PO-PSO Mapping CO8 POS PSO PSO PSO PSO PSO PSO PSO PSO PSO	netric	ie param	oute t	nd con	g a	deling	al mac	matic	nath	elon	deve	sis to	l analy	nsiona ototype	dime in pr	Apply value	CO1
CO4 Compute water surface profiles at different conditions		- 100		eters	am	para	inolud	tions	ee ee	s cr	rious	s of va	nannel	pen cl	n the	Desig	CO ₂
Cos	ons	nel section	chan	nomic	eco	ing e	metua	ol see	ohon:	nen	in o	o flow	cents t	ev con	Ener	Apply	CO3
CO5 Design turbines for the given data, and to know their operation characteristics under different operating conditions CO-PO-PSO Mapping PSC	,	sipation,	gy dis	te Ene	cula	Calc	tions,	er sec	ont a	i ffo	ot d	rofiles	face n	ater su	ute w	Comr	CO4
COs POs PSC CO1 2 3 4 5 6 7 8 9 10 11 12 1 2 CO2 2 2 2 2 2 2 CO3 2 2 2 2 2 CO4 2 2 2 2 CO5 2 2 2 2	fferent	ınder dif	stics	aracte	n ch	ration	ir oper	w the	o kno	and	ata, a	iven da	r the g	ines for	n turb	Desig	CO5
CO1 2 3 4 5 6 7 8 9 10 11 12 1 2 CO1 2 2 2 2 2 2 2 CO3 2 2 2 2 2 2 CO4 2 2 2 2 2 CO5 2 2 2 2							ing	lappi									
CO1 2 2 3 7 8 9 10 11 12 1 2 CO2 2<	SOs	PS						1	- T	- 1	-		4	2	2	1	COs
CO2 2 2 CO3 2 2 CO4 2 2 CO5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2	1 3	12	11)	10	9	8	7		6	5	4	3		-	CO1
CO3 2 2 CO4 2 2 CO5 2 2 2 2 2 2 2 2	2	1 3												_	_		000000000000000000000000000000000000000
CO3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2													2			
CO5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2															2	(00)07	
COS 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			-		+										2	2	CO4
Number 2 2 2 2 2 2 2 2 2			-		+					1				2	2	2	CO5
Average 2 2 2 2				-	+				-	+				2	2	2	verage

Subject:	Concr	ete Tec	chnolo	gy						Subj	ect Co	de:170	CV44		
						Cou	rse Ou	tcome	S				520		
CO1	Unde	erstand	mater	ial cha	racteri	stics ar	nd their	r influe	ence or	micro	structi	re of c	onorot	.0	-
CO ₂	Disti	nguish	concr	ete beh	avior l	based o	on its fi	resh an	d hard	ened p	roperti	AC OI C	oncrei	С.	
CO3	Desig	gn of d ssiona	lifferen	it types	of con	ncrete	mixes 1	for req	uired f	resh an	d hard	ened p	ropert	ies usii	ıg
						CO-PC)-PSO	Марр	ing						
COs							O-PSO Os	Mapp	ing					PSOs	
COs	1	2	3	4	5			Mapp	ing 9	10	11	12	1	PSOs 2	1
COs	1 2			4	5	P				10	11	12	1 2	PSOs	1
777000000000000000000000000000000000000	1 2 2	2		4	5	P				10	11	12	1 2 2	PSOs 2	1
CO1		2 2		2	5	P				10	11	12	1 2 2 2	PSOs	3

Subject:	Basic (Geote	chnica	l Engi	neerin	g				Subj	ect Co	de:170	CV45		
						Cou	rse Ou	tcome	S						
CO1	Identi	ify the	type o	of soil b	pased o	on phys	sical pr	opertie	es						_
CO ₂	Evalu	ate the	e engir	neering	prope	rties of	soil ir	terms	of she	ear and	compi	eccibil	ity	_	
CO3	Comp	oute th	e effec	tive st	resses	of the s	soil str	ata	OI DIII	our und	compi	CSSIUII	щ		
CO ₄				t of hy					soils	_					
CO5	Predic	ct the	failure	behavi	our of	soils		0.1 1110	50115.					V-800	_
						СО-РО	-PSO	Марр	ing						
COs						P	Os							PSOs	
005	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	2						-		584				2		_
CO2	2	2											2		\vdash
CO3	3	2											2		
CO4	2			2					_				10		5
CO5			2										2		
Average	2.25	2	2	2			-						2		
2.01.05	2.23												2		

Command

Subject:	Advan	ced su	ırveyir	ıg						Subj	ect Co	de:170	CV46		
						Cour	rse Ou	tcome	S				es as centres.		120
CO1	Appl	y the k	nowle	dge of	geome	tric pr	inciple	s to an	ive at	survey	ing pro	blems			
CO2	Anal	yze the	geo-s	patial o	data ob	tained	using	moder	n surve	eying in	nstrum	ents an	d appl	y the s	ame
CO ₃							irvey p	roblen	is with	the us	e of ele	ectroni	e instr	ument	
CO4	Desig	gn and	impler	nent th	e diffe	erent ty	pes of	curves	for de	viating	type o	of align	ments		,
				172		CO-PO					7 7 1				
COs				- 15/200		P	Os							PSOs	
COS	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	2	2											1	2	
CO ₂	2	2											1	2	
CO3	2	2											1	2	
CO4	2	2	2										1	2	
Average	2	2	2										1	2	

Subject:	Fluid :	Mecha	anics ar	id Hy	drauli	e Mac	hines l	Labora	tory	Subj	ect Co	de:170	CVL47	ria	
						Cour	rse Ou	tcome	S				2000 127 E		
CO1	Deve	lop pr	ocedure	for st	andard	lization	of ex	perime	nts.	-					
CO ₂			ow disc							, chann	els and	d tanks			
CO3			fluid an												
CO4	20100		e lamin				WS.				7	WHO ELLIN			
CO5	Test	the per	rforman	ce of	pumps	and tu	rbines						2000		200
								Mapp	ing						
COs						P	Os							PSOs	
COS	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	2	2		2					1			1		2	
CO2	2	2	2	2					1			1		2	
CO3			1	2		1100						1			
CO4	2	2	2	2	1	2			1			1			
CO5	2	2		2					1		1	1			
Average	2	2	1.66	2	1	2			1		1	1		2	

Subject:	Engin	eering	Geolo	gy La	borate	ry				Subj	ect Co	de:170	CVL48	8	
						Cou	rse Ou	itcomes							
CO1	Ident	ify the	miner	als and	l rocks	and u	tilize tl	hem effe	ective	ly in ci	vil eng	gineerir	ig prac	ctices	
CO2	Unde		and in	terpret				ditions o							vil
CO3		erpret subsurface information such as thickness of soil, weathered zone, depth of hard rock disaturated zone by using geophysical methods. derstand the techniques of drawing the curves of electrical resistivity data and its													
CO4					nnical	and ag	uifer b	oundari	es.	ical re	sistivit	y data	and its	S	
		-				-		Mappi	ng						
COs					4	P	Os							PSOs	
COS	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	- 1	2	2	2	2	1	1	1					2		
CO2	2	2	2	2	2	1	2	2					2		
CO3	2	2	2	2	2		1	1					2		
1000011001110				2	2		2						2		
CO4			1	S. C. C.											

Semester-V

Subject:	Design	of R	C Struc	tural]	Eleme	nts				Sub	iect (Code:1	7CV51		_
	<u> </u>					Cour	se Out	comes		300000000			, 0 , 0 1		-
CO1	Appl	y the d	lesign p	hiloso	phies a	nd pri	nciples	of the	codal	nrovis	ione				
CO2	Analy	ze an	d design	of the	e beam	eleme	nts for	flexur	e she	ar and	torsic	\n			
CO ₃	Analy	ze an	d Design	n of th	e Slab	and sta	aircase	using	the kn	owled	ge of	oodal r			
CO ₄	Desig	n of th	ne Colu	mn and	d Footi	ing usi	ng the	design	princi	nlec	ge or	coual	Drovisi	ons	
					C	O-PO-	PSO I	Mappi:	ng	ipies					
COs						PO			0					PSOs	-
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO ₁	2	1	1					3				1	2		-
CO ₂	2	3	3					3				2	2		
CO3	3	2	3					3				1	1,00000		
CO4	3	2	3					3				2	2		-
Average	2.8	2	2.5		-			3		-		1.8	2		-

Subject: A	nalysi	s of Ir	ıdeteri	ninate	e Stru	ctures	\$			Subj	ect Co	de:170	CV52		
	14					Cou	rse Ou	tcome	S						
CO1	Dete:	rmine ction	the sur method	port r l.	nomei	nts of	indeter	minate	beam	s and r	igid fra	ımes us	sing sl	ope	
CO2	Deter	rmine using	the sup	port r	nomei tributi	nts of i	indeter thod.	minate	beams	s and r	igid fra	mes w	ith no	n-sway	and
CO3	Cons by K	truct b ani's n													
CO4	Cons by sy	ani's method. truct bending moment and shear force diagrams for continuous beams and rigid frames stem flexibility method.													
CO5	Anal	yze co	ntinuo	us bea	ms, ri	gid fra	mes ar	nd plan	e truss	es by s	vstem	stiffne	ss met	hod.	
								Mapp							
						F	POs							PSOs	
COs														rous	
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2	
COs	3	3	3	4	5	6	7	8	9	10	11	12	2		
S. Outse	1 -		3	4	5	6	7	8	9	10	11	12	2 2		
CO1	3	3	3	4	5	6	7	8	9	10	11	12	2		
CO1	3	3	3	4	5	6	7	8	9	10	11	12			
CO1 CO2 CO3	3 3 3	3 3 3	3	4	5	6	7	8	9	10	11	12	2		3

Subject:	Appli	ed Geo	techn	ical E	nginee	ring	-27			Subi	ect Ca	de:170	CV53		
				to:		Cou	rse Ou	tcome	S	-3-			A 200		
CO1	Abil engi	ity to p neering	lan and g projec	d execu	ute geo	techni	cal site	inves	tigation	n progr	am for	differe	nt civ	il	
CO2	Unde sand	erstand and cl	ling of ayey so	stress oils	distrib	ution a	and res	ulting	settler	nent b	eneath	the lo	aded f	ooting	s on
CO3	Abil:	ity to e ibution	stimate behind	factor	r of saf	ety aga	ainst fa	ilure o	f slope	es and t	to com	pute la	teral p	ressure)
CO4	Abili	ity to d ted and	etermi	ne bear	ring ca	pacity	of soil	and a	hieve	profici	ency in	propo	rtionir	ng shal	low
CO ₅	Capa	ble of	estima	ting lo	ad carr	ving ca	apacity	of sin	gle and	dorour	ofnil	AC			
	14				(O-PO	-PSO	Mann	ing	a group	or pir	CS			
COs							Os	T.F	8					PSOs	
COS	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	2	2											1	2	
CO ₂	3	1											1	2	
CO3	2	1			1200			**					1	2	
CO4	3	3											1	2	
CO5	3	3											1	2	
Average	2.6	2.5					W - 1997	1000			-		1	2	

Subject:	Comp	uter A	ided I	Buildin	g Dra	wing				Subj	ect Co	de:170	CV54		
						Cou	rse Ou	tcome	es						
CO1	Gain	a broa	d unde	erstand	ing of	planni	ng and	design	ning of	buildi	108				-
CO2	Prep	are, rea	d and	interpr	et the	drawin	gs in a	profes	ssional	set up	3		_		
CO3	Knov		rocedu							lop wo		and sub	missio	n drav	ving
CO4	Plan	and de	sign a	resider	ntial or	public	build	ing as	per the	given	require	ements			
		2.310/922)-PSO					K. 1880			
COs						P	Os							PSOs	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	1				3							2	2	1	
CO ₂	1				3	1	1	1				2	2	1	
CO3	1				3							2	2	1	
CO4	1				3	1	1	1				2	2	1	
CU4		10													

Subject:	Railwa	ays, H	arbors	, Tuni	neling	and A	irport			Subj	ect Co	de: 17	CV55	2	
						Cou	rse Ou	tcome	S						
CO1	Deve aids.	lop lay	out pl	ans for	Airpo	rt, Har	bor, R	ailway	, Dock	along	with v	isual ar	nd nav	igation	al
CO ₂	Desig	esign of geometric aspects for railway system, runways and taxiway.													
CO3		naracterize & estimate the material quantity required for laying a railway track.													
CO4	Sumi	narize deratio	variou	s meth	ods of	tunne	ling, tu	nnel li	ning, d	rainag	e and e	environ	menta	1	
					(CO-PC	-PSO	Марр	ing						
COs						P	Os				3			PSOs	
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	3				1		2							2	
CO ₂	3	2	3			2								2 1	

CO ₃	3								
CO4	2			2		2	1 1	A Harris	2
Average	2.75	2	2	1.5		2	2	1	2
ge	2.13		3	1.5	2	1. 2 m	1.5	1	2

Subject:	Traffic	Engi	neering	3						Subi	ect Co	de: 17	CV56	1	
							rse Ou								
CO1	Und	lerstan able re	d the f	undam ships.	ental c	ompon	ents of	traffic	engir	neering	and id	lentify	basic	traffic	
CO2	Con	duct d	ifferen	t types	of tra	ffic sur	veys ar	nd ana	lysis o	fcollec	ted da	ta usin	g stati	stical	
CO3			he inte	rsectio	n capa	city and	d analy	eie of	cianol	izad in					
CO4	Eva	luate tr	raffic in	mpacts	on en	vironm	ent and	traffi	o cofor	zeu m	ersect	ion,		11	
CO5	Rece	ommei	nd suit	able tra	affic m	anagen	nent an	d dem	and m	y meas	ont m	000000			
					(CO-PO	-PSO	Mapn	ing	anagen	nent m	easures	5	-	-
COs			201			South	Os							PSOs	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	3													3	-
CO ₂	2	2												2	
CO3	3	2	2				- 35/5-11	1				1		198	_
CO4	2		I I			2	2	1		-		1		3	
CO5	2					1						1		2	
Average	2	2	2			1.5						1		2	
rciage						1.5	2	1				1		2.4	

Subject:	Geote	chnica	l Engi	neerin	g Lab)		1, 11		Subi	ect C	ode:17	CVL57	7	
						Cou	rse O	utcome	S				0 1 113 1		
CO1	Phys	ical an	d inde	x prope	erties o	of the s							11 12 12 13		_
CO2								identif	ication	n					- 777
CO3	To d	etermi	ne OM	C and	MDD.	plan a	nd ass	ess fiel	d com	naction	nrom	om			
CO4	Shea	r stren	gth and	1 consc	lidatio	on para	meter	s to asse	ess str	enoth a	nd def	ormati	on aha	rootori	ation
CO5	In-si	tu shea	r stren	gth cha	aracter	istics (SPT-	Demons	stratio	n)	na dei	Oman	on cha	acteri	SUCS
						- No.		Mapp		,					
COs						P	Os							PSOs	1
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	1 3
CO1	3	3	3			2	1	3	3	1		2	3	2	
CO2	3	2	2			1	1	3	3	1-1		2	3	2	-
CO3	3	2	3					3	3			2	3	2	-
CO4	3	2	3					3	3		1	3	2	1	
CO5	3	2	3					2	2			3	2	1	
Average	3	2	3			1.5	1	2.2	2	1	-	2.5	2.5	2	

ubject:	Concrete and Highway Material Lab	Subject Code:17CVL58
	Course Outcor	nes
CO1	Determine quality and suitability of cement in c	construction work
CO ₂	Design appropriate concrete mix and determine	
CO3	Test the road aggregates and bitumen for their s	suitability as road material
CO4	Evaluate the soil suitability as a pavement subg	rade soil

Page **10** of **21**

					P	Os							DCO	
1	2	3	4	5	6	7	Q	0	10	44	10		PSUS	
3					1	1	1	9	10	11	12	1	2	3
3				-	1	1 1 1	Til 1						1	
3		1			1	1	1						1	
3		_ +			1	1	1						1	
3		1			1	1	1						1	
	3 3 3	3 3 3	3 3 1 3	3 1 3 1 3 1	3 3 3 1 3	1 2 3 4 5 6 3 1 1 3 1 1 3 1 1 3 1 1	3 1 3 1 3 1 3 1 3 1 1 1 1 1 1 1	1 2 3 4 5 6 7 8 3 1 1 1 1 1 3 1 1 1 1 1 3 1 1 1 1 1 3 1 1 1 1 1	1 2 3 4 5 6 7 8 9 3 1 1 1 1 1 3 1 1 1 1 1 3 1 1 1 1 1 3 1 1 1 1 1	1 2 3 4 5 6 7 8 9 10 3 1 1 1 1 1 1 3 1 1 1 1 1 3 1 1 1 1 1 3 1 1 1 1 1	1 2 3 4 5 6 7 8 9 10 11 3 1 1 1 1 1 1 3 1 1 1 1 1 3 1 1 1 1 1 3 1 1 1 1 1	1 2 3 4 5 6 7 8 9 10 11 12 3 1 1 1 1 1 1 1 3 1 1 1 1 1 1 3 1 1 1 1 1	1 2 3 4 5 6 7 8 9 10 11 12 1 3 1 1 1 1 1 1 1 1 3 1 1 1 1 1 1 1 3 1 1 1 1 1 1	1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 1 1 1 1 1 1 1 1 3 1 1 1 1 1 1 1 3 1 1 1 1 1 1 3 1 1 1 1 1

Semester-VI

Subject:	Const	ructio	n Man	ageme	ent and	d Entr	epren	eurshi	p	Sub	ject Co	de:170	CV61		
			100.00			Cou	rse Ou	itcome	S				7 1 01		-
CO1	Outl	ine the	constr	uction	manag	ement	proces	26							
CO2	Asse dutie	ss vari	ous iss	ues tha	at are e	encoun	tered b	y ever	y profe	essiona	l in dis	chargin	ng pro	fession	al
CO ₃	Ident	ifying	the pro	ofessio	nal ob	ligation	ı effeci	tively y	with al	lobal o	-411				
					(CO-PC	-PSO	Mann	ina	obal of	itiook				
00			ê			100000	Os	mapp	mg						
COs	1	2	3	1	5		05							PSOs	
CO1	1		-		3	6	7	8	9	10	11	12	1	2	3
CO2	1	-1			1			1	1		1	1		2	
	1	1												2	
CO3	1										2	1			
Average	1	1	1		1			1	1		1.5	1		2	
		585						1 1	- 1	I .		1		2	

Subject:	Desig	n of St	eel Str	uctura	al Eler	nents				Subj	ect Co	de:170	CV62		
	1					Cou	rse Ou	itcome	S						
CO1	Expla	ain the	basic co	oncepts	of desi	gn of s	teel stri	ictures	and nla	astic ana	lvaia				
CO ₂	Desig	gn of bo	olted an	d welde	ed conr	ections	2	2014105	and pie	istic alla	11 y 515				
CO3	Desig	gn of ste	eel men	nbers si	piecte	d to axi	al load			-		-			
CO4	Anal	yze and	design	of stee	l memi	ers un	ler flev	uro							
				01 5000		CO-PC			ina						
COs			010117 - 1011 -				Os	марр	ing				1	DOO	
COS	1	2	3	4	5	6	7	8	0	10	4.4	1 40	340	PSOs	1
CO1	3	3	3	•		U		-	9	10	11	12	1	2	3
CO2	3							3				3	3		
		3	3					3				3	3		
CO3	3	3	3					3				3	3	1800	
CO4	3	3	3					3				3			
Average	3	3	3					3					3		
0	till and						6	3				3	3	8	

Subject:	Highway Engineering	Subject Code: 17CV63
	Course Outcomes	
CO1	Understand the importance and characteristics of road t alignment based on planning principles and surveys.	
CO2	Apply aspects of road geometrics and suitably design resystems.	oad geometric elements and drainage
CO3	Evaluate engineering properties of the material and proconstruction.	vide suitable guidelines for pavement
CO4	Analyse the highway economics and impart the knowle	edge on highway economics

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COs			r			P	Os							PSOs	-
	1	2	3	4	5	6	7	2	9	10	44	40		1 503	_
CO ₁	2							0	9	10	11	12	1	2	3
CO ₂	2	3	2				1,500	1						2	
CO3	2	2						1						3	
CO4	2	1												2	
Average	2	2	2					1						2	
	4							1					111	2	

~unject.	Water	r Supp	ly & 7	reatn	ent E	nginee	ring			Sub	iect Co	ode:170	CV64		
						Cou	rse Ou	itcome	S						
CO1	Anal the e	lyze the	e varia lesign	tion of period	water	demar	nd and	to estir	nate w	ater re	quirem	ent for	a con	munit	y at
CO2		tify the				ipply a	ınd to a	pply p	roper s	sampli	ng tech	niques	for th	e analy	sis c
CO3	Appl	y drink	cing w	ater au	ality s	tandar	ds and	to illus	trata a	nolitati		lysis o	C		
CO4	Desi	gn a co e requi	mpren	ensive	water	treatm	ent and	d distri	bution	systen	n to pu	rify and	d distr	r. ibute v	vater
CO5		gn prop					r raw a	nd tre	ated w	ator					
					(CO-PC)-PSO	Mapp	ing	aici					
				100000000000000000000000000000000000000			ALC: NO COMPANY								
COs						P	Os							PSOc	
COs	1	2	3	4	5	6 P	Os 7	8	9	10	11	12	1	PSOs	_
COs	1 2	2 2	3	4	5	100	STATE OF THE PARTY	8	9	10	11	12	1	2	_
	1 2 2	I TOO I TOO	3	4	5	100	STATE OF THE PARTY	8	9	10	11	12	1	2	_
CO1		2	3	4	5	6	7	8	9	10	11		1	2 2 2	_
CO1	2	2 2 2	3	4	5	100	STATE OF THE PARTY	8	9	10	11	12	1	2 2 2 2	3
CO1 CO2 CO3	2 2	2 2	3	4	5	6	7	8	9	10	11		1	2 2 2	_

Subject:	Solid	Waste	Mana	gemen	ıt				-	Subj	ect Co	de:170	CV651		
						Cour	rse Ou	itcome	S		Harrisonn Saltanie				
CO1	Ana	lyze exi	sting s	solid w	aste n	nanagen	nent s	ystem a	and to	identif	v their	drawh	acks		-
CO2	Eva	luate dif	ferent	eleme	nts of	solid w	aste m	nanagei	nent s	vstem	, then	aramor	acks.		-
CO3	Sug	gest suit	able s	cientif	ic met	hods fo	r solid	waste	manac	rement	eleme	nte			
CO4	Des	ign suita	ible pr	ocessii	ng sys	tem and	l evalu	ate dis	posal s	sites.	CICIIIC	1113.			
						СО-РО									
COs							Os							PSOs	
003	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	1	2				1	1					1		2	-
CO ₂	1	2			1	1	1					1		2	-
CO3	1	1				1	1					1		2	-
CO4	1	2			- 3700	2	1					1		2	
Average	-1	1.75			1	1.25	1					1		2	

Subject	Matrix Methods of Structural Analysis	Subject Code:17CV652
	Course Outcom	
CO1	Evaluate the structural systems and apply the consimple problems.	cepts of flexibility and stiffness matrices for
CO2	Identify, formulate and solve engineering problem	ns with respect to flexibility matrices as

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CO3	Iden to co	tify, fo ntinuo	rmulat us bea	e and s	solve e	nginee	ring pr	oblem	s with	respect	to stif	fness r	natrice	es as ap	plied
CO4	Iden	tify, fo	rmulat	e and s	olve e	nginee	ring pr and tru	oblem	s with	respect	to dire	ect stiff	ness n	nethod	as
	т)-PSO		ing						
COs						1000000	Os		_0_		- Prilitary			PSOs	
	1	2	3	4	5	6	7	8	0	10	11	12	-	1 303	
CO1	3	3					-	-		10	11	12	_ I	2	3
CO2	3	3											2		
CO3	3	3					-						2		
CO4	3	3											2		
Average	3	3	-			-							2	30 TH 30	
8*													2		

Subject:	Alteri	iate Bi	uilding	mate	rials					Subj	ect Co	de:170	CV653		
						Cou	rse Ou	itcome	S					94. 	
CO1	Disc	uss cor	ncept o	f Energ	gy in b	uildin	g mate	rials			-				
CO ₂	Desc	ribe th	e elem	ents of	struct	ural m	asonry	iais				100 100			
CO3	Class	sify alt	ernate	buildin	g mat	erials a	and tec	hnolog							-342
CO4	Inter	act the	availal	ble ma	chiner	ies for	produc	tion of	f Altar	nate bu	ildina		1		
					(CO-PC)-PSO	Mapp	ing	nate bu	nuing	materi	als.		-072
COs							Os							PSOs	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	3	2				1	1		<u> </u>	10	4.1	12		L	-
CO ₂	3	2				1	1						2		_
CO3	3	2				1	1						2		
CO4	3	2				1	1						2		
- NAME OF STREET						1	1						2		
Average	3	2				1	1				1 22	- 200	2	-	

Subject:	Water	Reso	urce N	Ianage	ement					Subj	ect Co	de:170	CV661		
						Cou	rse Ou	tcome	S						
CO1	Judg	e surfa	ce and	groun	dwater	resou	rces		11.5	-31				- 0.5	
CO2	Addı	ess the	issues	of wa	ter res	ources	manag	rement	1					-	
CO3	Desc	ribe th	e legal	frame	work c	of wate	r polic	V							-
CO4	Class	sify the	metho	ods of	water l	arvest	ing pra	ctices					-		
)-PSO								
COs							Os							PSOs	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	2	2		1	2	2						1		1	
CO ₂	1	2		1	2	2						2		1	
CO3	1	2		1	2	2				-				1	
CO4	1	1		1	1	1		1899				2		2	
Average	1	2		1	2	2				-		2		2	
irrage	1	2		1								2		2	

Subject:	Numerical Methods and Applications	Subject Code:17CV663
	Course Outcon	mes
CO1	Clear perception of the power of numerical techn	niques, ideas.
CO2	Demonstrate the applications of these techniques management and other engineering fields	s to problems drawn from industry,
CO3	Acquire the necessary basic concepts of a few nu	merical methods
CO4	Analyze and solving numerically different kinds	of problems

					(CO-PC)-PSO	Марр	ing					S-	-
COs							Os	and of	m u l	TWUT		1001		PSOs	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	
CO1	3	1								AU.	11	14	1	Z	3
CO ₂	3	3	2	1	10.5								2		
CO3	3	3		-			-						_2_	2	
CO4	3	3	2	1		-						1	2		
	2												2	2	
Average	3	2.5	2	1.5								1	2	2	

Subject:	Softwa	are App	plicatio	n Lab						Subj	ect Co	de:170	CVL67	7	-
	100 00					Cour	rse Ou	tcome	S						
CO1	Use of time	of softy for cor	ware sk npletic	cills in on of w	a profe ork.	essiona	ıl setup	to aut	omate	the wo	ork and	thereb	y redu	ice cyc	le
					(CO-PO	-PSO	Марр	ing			_			- Louis
COs				s			Os							PSOs	_
0.00															
COS	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	3	2	3 2	4	5	6	7	8	9	10	11	12	1	2	3

	Exten	sive su	irvey I	project	t					Subj	ect Co	de:170	CVL6	8	
								ıtcome							
CO1	App	ly surv	eying l	knowle	edge ar	id tool	s effect	tively 1	or the	project					
CO2	Unde	erstand rds co	and a	pply ta	sk, env	ironm	ental g	oals, r	espons	ibility,	task fo	orces, v	vorkin	g in te	ams
CO3	Appl	lication nunica	of inc	lividua	l effec	tivenes	s, skil	ls in te	am and	l or go	al setti	ng, tim	e man	ageme	nt,
CO4	Profe	essiona	l, Etiq	uettes a	at worl	place	, meet	ings an	d gene	ral				_	
CO5	Estal	olishing	g trust-	based	relatio	nships	in tear	ns and	organi	zation	al envi	ronmer	nt.		
~~~	Orie	ntation	toward	ds conf	flicts in	team	and or	ganiza	tional	anviror	mont	undorg	tondin	00 00	
CO6	of co	nflicts,	, resolu	itions a	and tec	hnique	es	gamza	ionai		iment,	unders	tanun	gs, soi	urce
CO6	of co	nflicts,	, resolu	itions a	and tec	hnique	es	Mapp			intent,	unders	tanun	185, 501	urce
	of co	nflicts,	, resolu	itions a	and tec	hnique C <b>O-PC</b>	es				iment,	unders	tandii		
CO ₆	of co	nflicts,	resolu 3	itions a	and tec	hnique C <b>O-PC</b>	es <b>)-PSO</b>			10	11	12	1	PSOs	
	of co	ntlicts,	, resolu	itions a	and tec	hnique CO-PC P	es D-PSO Os	Марр	ing					PSOs	
COs	of co	ntlicts,	, resolu	itions a	and tec	hnique CO-PC P	Os 7	Марр	ing				1	PSOs 2	
COs	1 2	nflicts,	, resolu	itions a	5 2	hnique CO-PC P 6 2	Os 7 2	Марр	ing				1 2	PSOs 2 2 2	
COs CO1 CO2	1 2 2	nflicts,	, resolu	itions a	5 2 2	hnique CO-PC P 6 2 2	PSO Os 7 2 2 2	Марр	ing	10	11	12	1 2 2	PSOs 2 2 2 2 2	
COs CO1 CO2 CO3	1 2 2 2 2	nflicts,	, resolu	itions a	5 2 2 2 2	P 6 2 2 2	Os 7 2 2 2 2 2	Марр	ing	10	11	12	1 2 2 2 2 2	PSOs 2 2 2 2 2 2 2	
COs CO1 CO2 CO3 CO4	1 2 2 2 2 2 2	nflicts,	, resolu	itions a	5 2 2 2 2	hnique CO-PC P 6 2 2 2	PSO Os 7 2 2 2 2	Марр	ing	10	11	12	1 2 2 2	PSOs 2 2 2 2 2	

#### Semester-VII

Subject:		orban s	enter IIII	uustila	ii was					Sub	ject Co	ode:17	CV71		277
001	T=-		aw o			Cou	rse O	itcome	S						
CO1	Desi	gn mu	nicipal	and in	dustria	al sewa	ige trea	atment	nlant						
CO ₂	Estin	nate th	e degr	ee and	type o	f treatr	nent fo	or disno	sal R	ecvolo	and so	use tec	Late.		
CO ₃	Ana	yze w	astewa	ter cha	racteri	stics	-10110 10	or dispe	bai. IX	ccycle	and re	use tec	nnique	S	
CO4	Reco	gnize	the cor	nmon	physic	al, che	mical,	and bid	ologica	al unit o	perati	ons end	counte	red in	
CO5	Com	munic	ate wit	h stake	holde	rs' sew	age an	d indu	strial e	ffluent	c			-	
					-	CO-PC	DCO	BAT-	,	111uciii,	3				
							<b>1-120</b>	Mapp	ing						
COs						0000	0s	Mapp	ing		- 1.WE			DSO	
COs	1	2	3	4	5	0000		Mapp 8		10	11	12	1	PSOs	-
COs	1 3	2 2	3 3	4 2	r	6	Os 7		ing 9	10	11	12	1	2	-
	1 3 2	2	3	2	r	6 2	Os 7 2			10	11	12	1	2	-
CO1	2	2 2		2 2	r	P 6 2 2 2	Os 7 2 2 2			10	11	12	1	2	-
CO1 CO2 CO3	50	2 2 2	3 2	2	r	6 2	Os 7 2 2 2 2 2			10	11	12	1	2	3
CO1 CO2 CO3 CO4	2	2 2	3	2 2	r	P 6 2 2 2	Os 7 2 2 2			10	11		1	2 2 2 2	-
CO1 CO2 CO3	2	2 2 2	3 2	2 2	r	P 6 2 2 2	Os 7 2 2 2 2 2			10	11		1	2 2 2	_

Jesig	n of RC	CC an	d Steel	l Struc	ctures				Subj	ect C	ode:170	CV72		
					Cou	rse Ou	itcome	S						
Ap foo	ply basi ting and	c knov l retain	wledge ning wa	of lim all.	it state	metho	od and	design	RC str	ructure	s such	as cor	nbined	
Ad	opt coda	al prov	isions.	profes	ssional	ethics	and de	esion v	vater to	nka on	d norte	1 €		
Eva	aluate th	e forc	es acti	ng on s	steel ro	of trus	ss and	design	by fol	lowing	the ac	dal	es.	
Ana	alyse an	d desi	gn stee	el struc	tures s	uch as	plate a	nd oar	try gir	der co	g me co	oai pr	ocedur	e.
38				(	CO-PC	)-PSO	Mapp	ing	my gn	uci ca	Tymg I	IIOVIII	g loads	•
								- 8		- 17 m			PSOs	
1	2	3	4	5	6	7	8	9	10	11	12	1	7503860 MB050	T 3
2	2	3				107	3		10		1	2		-3
2	3	3			-					369 3	2	0.500	-	⊢
2	2	3					- 5							_
2	2	3			100.75						1			_
2	2.25	3					3				1.5	2		
	Ap foo Add Eva Ana	Apply basi footing and Adopt code Evaluate the Analyse and 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Apply basic know footing and retain Adopt codal prove Evaluate the force Analyse and desired and the second	Apply basic knowledge footing and retaining we Adopt codal provisions. Evaluate the forces action Analyse and design steed and the footing and the forces action and the footing and retaining we have a supplied to the footing and retaining we have a supplied to the footing and retaining we have a supplied to the footing and retaining we have a supplied to the footing and retaining we have a supplied to the footing and retaining we have a supplied to the footing and retaining we have a supplied to the footing and retaining we have a supplied to the footing and retaining we have a supplied to the footing and retaining we have a supplied to the footing and retaining we have a supplied to the footing and retaining we have a supplied to the footing and retaining we have a supplied to the footing and retaining we have a supplied to the footing and the footi	Apply basic knowledge of lim footing and retaining wall.  Adopt codal provisions, profest Evaluate the forces acting on standard Analyse and design steel structory.  1 2 3 4 5 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Apply basic knowledge of limit state footing and retaining wall.  Adopt codal provisions, professional Evaluate the forces acting on steel ro Analyse and design steel structures s  CO-PO  P  1 2 3 4 5 6 2 2 3 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 3 2 2 2 3 3 2 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Apply basic knowledge of limit state methor footing and retaining wall.  Adopt codal provisions, professional ethics Evaluate the forces acting on steel roof trus Analyse and design steel structures such as  CO-PO-PSO  POS  1 2 3 4 5 6 7 2 2 3 3 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Apply basic knowledge of limit state method and footing and retaining wall.  Adopt codal provisions, professional ethics and designate the forces acting on steel roof trusss and Analyse and design steel structures such as plate a CO-PO-PSO Mapper POs  1 2 3 4 5 6 7 8 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Apply basic knowledge of limit state method and design footing and retaining wall.  Adopt codal provisions, professional ethics and design versuluate the forces acting on steel roof trusss and design Analyse and design steel structures such as plate and gar CO-PO-PSO Mapping  POS  1 2 3 4 5 6 7 8 9 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Apply basic knowledge of limit state method and design RC state footing and retaining wall.  Adopt codal provisions, professional ethics and design water taxible Evaluate the forces acting on steel roof trusss and design by fol Analyse and design steel structures such as plate and gantry gir  CO-PO-PSO Mapping  POS  1 2 3 4 5 6 7 8 9 10 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Apply basic knowledge of limit state method and design RC structure footing and retaining wall.  Adopt codal provisions, professional ethics and design water tanks an Evaluate the forces acting on steel roof trusss and design by following Analyse and design steel structures such as plate and gantry girder can CO-PO-PSO Mapping  POS  1 2 3 4 5 6 7 8 9 10 11 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Apply basic knowledge of limit state method and design RC structures such footing and retaining wall.  Adopt codal provisions, professional ethics and design water tanks and portate Evaluate the forces acting on steel roof trusss and design by following the code Analyse and design steel structures such as plate and gantry girder carrying recopy records and the structures of the structures of trusts and design by following the code Analyse and design steel structures such as plate and gantry girder carrying recopy recopy records and the structures of trusts and design by following the code Analyse and design steel structures such as plate and gantry girder carrying recopy recopy records and the structures of trusts and design by following the code Analyse and design by following the code Analyse and design steel structures such as plate and gantry girder carrying recopy re	Course Outcomes  Apply basic knowledge of limit state method and design RC structures such as corfooting and retaining wall.  Adopt codal provisions, professional ethics and design water tanks and portal fram Evaluate the forces acting on steel roof trusss and design by following the codal provisions and design steel structures such as plate and gantry girder carrying moving CO-PO-PSO Mapping  POS  1 2 3 4 5 6 7 8 9 10 11 12 1 2 2 3 3 3 3 3 5 2 2 2 2 3 3 5 5 2 2 2 2	Apply basic knowledge of limit state method and design RC structures such as combined footing and retaining wall.  Adopt codal provisions, professional ethics and design water tanks and portal frames.  Evaluate the forces acting on steel roof trusss and design by following the codal procedur Analyse and design steel structures such as plate and gantry girder carrying moving loads  CO-PO-PSO Mapping  POs  PSOs  1 2 3 4 5 6 7 8 9 10 11 12 1 2 2 2 3 3 3 1 2 2 2 2 3 3 3 2 2 2 2 2 3 3 3 2 2 2 2 2 3 3 3 3

Subject:	Hydro	logy a	nd Irrig	gation	Engine	ering				Sub	ect Co	de:170	CV73		
	_						rse Ou					-		*****	
CO ₁	Unde	erstand	the im	portan	ice of l	ydrolo	ogy and	d its co	mpone	ents.					
CO2	Desc losse	ribe fo s	rms of	precip	itation	, its m	easurei	nent a	nd ana	lyse the	e preci	pitation	data	precipi	atio
CO3	Estin	nate ru	noff ar	d deve	elop un	it hyd	rograpl	ns.			V no	-		-	
CO4	Disci	uss the	benefi ater an	ts of I	rigatio	n and	its diff gation f	erent n	nethod	s and e	valuat	e the qu	uantity	of	
CO5	Estin	nate ca	nal cap	acity,	design	the ca	nal and	d com	oute the	e reserv	voir ca	nacity			
				4.2	(	CO-PC	)-PSO	Mapp	ing		on ou	pacity			
COs			Y			P	Os							PSOs	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1						2	3	2			172	2		1	
CO ₂	2.	2	1			1	2					1			Alless e

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CO3	2	2	1			1 2				
CO4	2	2	2	1	2	2	-	100	1	1
CO5	3	3	2	1	<u> </u>	2	1		1	2
Average	2.25	2.25	1.5	1	1	2			1	2
8-	2.23	2.23	1.3	1	1.6	2.2	1.5		1.2	1.4

	Grou	nu vv.	ater &	Hyara	aulics	_				Sub	ject C	ode:17	CV74	2	
001	In.					Coı	irse O	utcome	es						-
CO1	Find	the cl	naracter	istics	of Aqu	ifers								3	-
CO2	Estin	nate the	he quan	tity of	groun	dwater	by va	rious n	nethod	s	- P. J				
CO3	Loca	ite the	zones (	of grou	ındwat	er reso	ources								
CO4	Sele	ct suit	able me	thod t	o augn	nent gr	oundw	ater sto	orage						
					(	CO-P	O-PSO	Марр	oing						
COs						F	Os				-	-		PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	,   3
CO1	3					2	2			10	11	2	1	2	-3
CO ₂	2						2			-	<u> </u>	2		2	-
CO3	3	2			2	2	3					2			-
CO ₄	2	2				2	2				-	2		2	-
Average	3	2			2	2	2	-				2		2	
CO1	Desci	ribe th	e basics	of ho	use plu	umbin	rse Ou g and v	vaste w	ater co	allectic			CV743 al.		
CO1 CO2	Desci	ibe th	e basics basics e issues	or Hea	at Vent	umbin	g and v	vaste w	ater co	ollectio	n and	disposa	al.		
CO2	Discu Desci harve	ibe th sting.	e issues	or Hea	respect	umbin ilation t to qu	g and want and A	vaste water of water	ater co ditioni r, rain	ollectio	n and	disposa	al.		
CO2 CO3 CO4	Desci harve Identi	ribe the sting.  fy req	e issues	or Hea	respect	umbing ilation to qual	g and value and A antity of	vaste wir Conof wate	ater co ditioni r, rain	ollectio	n and	disposa	al.		
CO2	Desci harve Identi	ribe the sting.  fy req	e issues	or Hea	therma	umbing ilation to qualify to qualify a company to gineeri	g and value and A antity of fort in large servers	vaste water Constitution of water building vices.	vater co ditioni r, rain gs	ollectio	n and	disposa	al.		
CO2 CO3 CO4 CO5	Desci harve Identi	ribe the sting.  fy req	e issues	or Hea	therma	umbing ilation to qual comparts of the compart	g and value and A antity of fort in large server.	vaste wir Conof wate	vater co ditioni r, rain gs	ollectio	n and	disposa	al.	top	
CO2 CO3 CO4	Desci harve Identi	ribe th sting. Ify req in the	uirement various	with nts of types	therma of eng	umbingilation to qual complete	g and value and A antity of fort in lang servers of the lang serve	vaste water Conference of water building vices.	vater co ditioni r, rain gs	ollectic ng. water	n and o	disposa	al. d roof	e top  PSOs	
CO2 CO3 CO4 CO5	Descri harve Identi Expla	ribe th sting. If y require the	e issues	or Hea	therma	umbingilation to qualify to quali	g and value and A antity of fort in lang serve-PSO Os	vaste water Constitution of water building vices.	vater co ditioni r, rain gs	ollectio	n and	disposating and	al. d roof	top	3
CO2 CO3 CO4 CO5	Describarve Identi Expla	ribe the sting.  If y require the sting of t	uirement various	with nts of types	therma of eng	umbing cilation to qual communication of the	g and value and A antity of fort in lang server PSO Os 7 2	vaste water Conference of water building vices.	vater co ditioni r, rain gs	ollectic ng. water	n and o	disposating and	al. d roof	e top  PSOs	3
CO2 CO3 CO4 CO5 COs CO1	Describarve Identi Expla	ribe the sting.  If y require the sting in t	uirement various	with nts of types	therma of eng	umbin cilation to qualification for the qualification of the qualificati	g and value and A antity of fort in lang serve. PSO Os 7 2 2	vaste water Conference of water building vices.	vater co ditioni r, rain gs	ollectic ng. water	n and o	disposaring and	al.  d roof  1 2 2	e top  PSOs	3
CO2 CO3 CO4 CO5 COs CO1 CO2	Describarve Identi Expla	ribe the sting. If y require the sting of th	uirement various	with nts of types	therma of eng	ilation to qualification of to qualification of the	g and value and A antity of fort in lang serve-PSO Os 7 2 2 2 2	vaste water Conference of water building vices.	vater co ditioni r, rain gs	ollectic ng. water	n and o	disposaring and	1 2 2 2	e top  PSOs	3
CO2 CO3 CO4 CO5 COs CO1 CO2 CO3	Describarve Identi Expla	ribe the sting. Ify require the sting of the	uirement various	with nts of types	therma of eng	umbing cilation to qual to qual company compan	g and value and A antity of fort in lang serve-PSO Os 7 2 2 2 2 2 2 2 2	vaste water Conference of water building vices.	vater co ditioni r, rain gs	ollectic ng. water	n and o	disposaring and	1 2 2 2 2	e top  PSOs	3
CO2 CO3 CO4 CO5 COs CO1 CO2 CO3 CO4	Describation Descr	ribe the sting. If y require the sting of th	uirement various	with nts of types	therma of eng	ilation to qualification of to qualification of the	g and value and A antity of fort in lang serve-PSO Os 7 2 2 2 2	vaste water Conference of water building vices.	vater co ditioni r, rain gs	ollectic ng. water	n and o	disposaring and	1 2 2 2	e top  PSOs	3

Subject:	Urbar	Tran	sporta	tion a	nd Pla	nning				Subj	ect Co	de:170	CV751		
						Cou	rse Ou	tcome	S						
CO1	Iden requ	tify url ired fo	oan trai r Urbai	nsport n Tran	proble sport P	ms. Do	esign, o	conduc	t and a	dminis	strate s	urveys	to pro	vide d	ata
CO2	Estir	nate ur	ban tra d use c	ivel de	mand	to deve	elop tri	p gene	ration	models	and to	rip dist	ributio	n rate	for
CO3	Plan	urban	transpo	ort net	works	based o	on mod	lal cho	ice and	didenti	fy urb	an tran	cnort c	owide	
CO4	Valid	late the	e devel	loped r	nodel	for lon	g term	transp	ortatio	n plan	ily ulb	an uan	sport c	orrido	rs
								Mapp							
COs						P	Os							PSOs	01
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	3					1			7.80	T. Section				2	

CO2	3	1		1 1			
CO3	3	1	1	1		1	2
CO4	1			1 1		1	2
Average	2.5	1		1 1 10 1	CALLED WILLIAM	1	2
- 8				1		1	2

Subject:	Rehal	oilitat	ion and	Retro	fitting	g of St	ructur	es		Subj	ect Co	de:170	CV753	3	
						Cou	rse Ou	tcome	s				0 1 1 0 0		
CO1	Unde	erstan	d the car	use of	deterio	oration	of con	crete s	tructu	roc		-	-		
CO ₂	Asse	ss the	damage	of dif	ferent	types	of strue	ctures	and ro	000000000000000000000000000000000000000	. 1 (1	Marian Control			
CO ₃	Sum	mariz	e the pri	nciple	s of re	nair an	d rehel	bilitati	and rec	comme	nd the	necess	ary so	lution	
CO4	Reco	gnize	ideal m	aterial	for di	fforont	ropoir	onder	OH OI S	tructure	es ·				
		0	10001111	atoriai	101 (1)	CO-PC	PSO	Mapp	ing	ng tech	inique				
CO							Os	mapp	ıng					<b>-</b>	
COs	1	2	3	4	5	6	7	8	9	10	11	4.0		<b>PSOs</b>	
CO1	2	2			-	-		0	9	10	11	12	1	2	3
CO2	2	2	3			-	_						2		
CO3						1		1					2		
	2	_ 2	2			1		1					2		
CO ₄	2	2	2								1		2		
Average	2	2	2.33			1		1	-		1		2		

Subject:	Envir	onme	ntal En	ginee	ring L	ab				Subi	ect Co	de:170	CVI.7	6	
						Cou	rse Ou	tcom	es				, ,		
CO1	Acqu	ire ca neters	pability	to co	nduct e	experin	nents a	nd est	imate t	he cond	centrat	ion of o	differe	ent	
CO ₂	Com	oare tl	ne resul	t with	standa	rds and	d discu	ss has	ed on t	he nurr	ose of	analys	:_		
CO3	Deter	mine	type of	treatn	nent de	gree o	ftreatr	nent fo	or wate	r and w	vacteur	allalys	IS		
CO4	Ident	ify the	param	eter to	be an	alvsed	for stu	dent n	roject v	work in	envir	aici.	ol otro		
CO5						ary o ca	101 514	dont p	Toject	WOIK III	CHVIIC	Jiiiieiii	ai stre	am	1100
					(	CO-PC	)-PSO	Mapr	ing					-	-
COs						A Towner	Os							PSOs	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	
CO1	3	2	1	2			2		2	2			-	3	-
COI															
CO2	2	2	1			2	2	2	1				Die Co	2	
	2	2	2	2		2	-	2	1	2				3	
CO2			2 2	2 2	2	2	2	2	1			2		3	
CO2 CO3	2	2			2		-	-	1 2			3			

Subject:	Compu	ter Ai	ded De	etailing	g of Str	ucture	S			Subj	ect Co	de:170	CVL7	7	
						Cou	rse Ou	tcome	S				S 77 % 1/202	2	
CO1	Acqu	ire pro	ficiend	cy in so	oftware	skills	61		200						
CO ₂	Outlin	ne the	princi	oles as	per co	dal pro	vision								
CO3	Devel	op de	tailed v	workin	g draw	ing of	RC an	d Steel	struct	ures			THE COLUMN TWO IS NOT		
							)-PSO			ures					-
COs							Os							PSOs	
COS	1	2	3	4	5	6	7	8	9	10	11	12	1	2	T 3
CO1	2					1	2	3	3 27 700			2	3	1	<u> </u>
CO2	3	3	3					3			-	2	3	1	$\vdash$
CO3	3	3	3			W		3				2	3	1	-
Average	2.66	3	3			1	2	3				2	3	1	-

Page **17** of **21** 

	Projec	t Phase	e I							Sub	iect C	ode:17	CVP7	Q	
						Cou	rse Ou	ıtcom	S			340.17	O 11 /		
CO1	App	ly Surv	eying	knowl	edge a	nd too	s effec	tively	for pro	iects				-	
CO2	towa	erstand	ling Ta	sk env	ironme	ent. Go	als re	sponsi	rilities	Tools	focus, is, tecl	workin nnical a	g in T	eams	al
CO3	Appl time	ication manag	of inc	lividua comn	l effec	tivenes	ss skill	s in tea	m and	organi	zation	al conte	ext, go	al sett	ing,
CO ₄	Profe	ssiona	l etiqu	ettes a	t work	place	meetin	o and	tanarol	3.		_			_
CO5	Estab	olishing	g trust-	based	relatio	nshins	in tear	ne & o	raania	otional		nment	Was Et al		
CO6	Offer	namon	toward	is con	flicts ir	i team	and or	oaniza	tional a	enviror	ment	Inder	standir	or com	2000
	or co	nflicts,	, Confl	ict res	olution	styles	and te	chnia	es		ancin,	Onders	manun	ig soui	CCS
	of co	nflicts,	Confl	ict res	Julion	styles	and te	chniqu	es			Onders	- Candin		ces
COs	01 00	nflicts,	, Confl	ict res	Julion	Styles CO-PC	and te D-PSO Os	chniqu	es			Onders	standin		
COs	1	nflicts,	, Confl	ict reso	Julion	Styles CO-PC	and te	chniqu	es				1	PSOs	
COs	1 2	minets,	Com	ict res	C	Styles CO-PC	ond te	Mapp Mapp	es ing	10	11	12	1	PSOs 2	
	1	minets,	Com	ict res	5	P 6 2	Os 7	Mapp Mapp	es ing			12 2	1 2	PSOs 2 2	
CO1	1 2	2	Com	ict res	5 2 2 2	P 6 2 2	ond te D-PSO Os 7 2 2	Mapp Mapp	es ing			12 2 2	1 2 2	PSOs 2 2 2 2	
CO1	1 2 2 2	2	Com	ict res	5 2	P 6 2 2 2 2	7 2 2 2 2	Mapp 8	es ing	10	11	12 2 2 2	1 2 2 2	PSOs 2 2 2 2 2 2	
CO1 CO2 CO3 CO4	1 2 2 2 2	2	Com	ict res	5 2 2 2	Styles   CO-PC   P   6	7 2 2 2 2 2 2	Mapp 8	es ing			12 2 2 2 2	1 2 2 2 2	PSOs 2 2 2 2 2 2 2	
CO1 CO2 CO3 CO4 CO5	1 2 2 2 2 2	2	Com	ict res	5 2 2 2	Styles CO-PC P 6 2 2 2 2 2 2 2	and te D-PSO Os 7 2 2 2 2 2	Mapp  8  2 2	es ing	10	11	12 2 2 2 1 2	1 2 2 2 2 2	PSOs 2 2 2 2 2 2 2 2 2	
CO1 CO2 CO3 CO4	1 2 2 2 2	2	Com	ict res	5 2 2 2	Styles   CO-PC   P   6	7 2 2 2 2 2 2	Mapp 8	es ing	10	11	12 2 2 2 2	1 2 2 2 2	PSOs 2 2 2 2 2 2 2	

#### Semester-VIII

Subject:	Quan	tity Su	ırveyin	g and	Contr	acts N	<b>Ianag</b>	ement		Subj	ect Co	de:170	CV81	*	
						Cou	rse O	utcome	S			7			
CO1	Estin	nate th	e quant	ities o	f diffe	rent ite	ems of	work fo	or road	de and l	avildi				
CO ₂	Deve	lop sp	ecificat	ions f	or Civi	1 Engi	neerin	g works	and r	aronono	mata a	igs			
CO3	Inter	pret co	ontract of	locum	ents of	fdome	etic at	nd interr	anu p	olepare	rate ai	nalysis			
CO4	Deve	lop va	luation	report	s of bi	ildino	c al	id iiiteii	iation	ai cons	ruction	n work	S		
								Марр	ing						
COs							Os							PSOs	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO ₁	3	2	2			1	1	1	-		2			1	- 3
CO ₂	3		3			1		2			2	4			
CO3	2	2				1				-		1		1	
CO4	2	2	3			1		2			2	1		1	
		80.70	1774	-		1		2			2	1		1	
Average	2.5	1.5	2.25			1	1	1.75			2	1		1	

Subject:	Design	n of Pr	e-Stres	ssed C	oncre	te Elei	nents			Subj	ect Co	de:170	CV82		
The state of the s		The state of the s				Cou	rse O	utcomes	3					-	
CO1	Ident	tify the	suitabl	le mate	erials,	metho	ds. and	d system	is of n	restres	sing			-	
CO ₂	Anal	yse the	stresse	es, loss	es, an	d defle	ections	in the p	re-str	essed b	eame				
CO ₃	Anal	yse and	d design	n the p	re-stre	ssed c	oncret	te memb	ers fo	r Flevi	re and	Chaor	Ctrone		
CO4	Anal	yse and	d design	n the C	compo	site se	ction f	for Flexi	ire an	d Shear	r Stren	oth	Sueng	gui.	
								Mappi		u onea	Such	gui.	1750		
COs							Os		0	- 19				PSOs	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO ₁	2	2											2		- 3
CO ₂	3	3	2					2	W				2		
CO3	2	3	3					3							
CO4	2	3	3					2					2		
Average	2.25	2.75	2.67		E			2.33					2		

Subject:	Hydra	ulic St	ructu	res						Subj	ect Co	de:170	CV832	2	
						Cou	rse Ou	tcome	S				es in eastern		
CO1	Anal	yse the	stabil	ity of g	gravity	dams	and de	sign th	e dam						
CO ₂	Estin	nate the	quan	tity of	seepag	e thro	ıgh ear	th dan	IS		11.500				
CO3	Desig	gn spill	ways a	and apr	rons fo	r vario	us dive	ersion	works						_
CO4	Selec	t a part	icular	type o	f canal	regul	ation w	orks fo	or cana	al work	S.			-	
							-PSO			ar Work					
COs						18310	Os		-		ra#55#			PSOs	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO ₁	3	3	3	1	9-16-2	2					1		2	1	
CO ₂	2	2	2	1	- 3/E-0		1				1	(80)	2	1	-
CO3	2	2	1									1	2	1	
CO4	2	2	2			2	P. 24. 0					1			
Average	2.75	2.75	2	1		2	1				1	1	2	1	CHIPS:

Subject:	Paven	nent D	esign				318 X			Sub	ect Co	de:170	71/833	<u> </u>	_
الأعطية					25.5	Cou	rse O	utcome	S						
CO1	Syste Airfi	ematica eld)	ally ge	nerate	and co	mpile	require	ed data	for de	sign of	paven	nent (H	ighwa	y &	-
CO ₂	Anal	yze str	ess, sti	rain an	d defle	ction h	v Rou	ssines	'c D.,	icto	,2 1	***			
CO3	Desig	n rigi	d pave	ment a	nd flex	ible no	Veme	nt confe	S, Du	rinste	rs and	Weste	rgaard	's thec	ry.
CO4	Lvan	iaic in	e berre	rmanc	e or the	e pave	ment a	nd also	devel	ops ma	intena	nce sta	temen	t based	l l on
					(	CO-PC	-PSO	Марр	ing						_
COs							Os								
COS		y -311												PSOs	-
	1	2	3	4	5	6	7	8	9	10	11	12	1	PSOs	_
CO1	1	2	3	4	5	6	7	-	9	10	11	12	1	2	_
	1	2	3		5	6	7	8 2	9	10	11	12	1	2	_
CO1	1	2		3	5	6	7	-	9	10	11	12	1	2 2 2	_
CO1 CO2 CO3	1	1	3		5		7	-	9	10	11	12	1	2	_
CO1	1	1			5	2 2	7	-	9	10	11	12	1	2 2 2	3

Subject:	Intern	ship								Subj	ect Co	de:170	CV84		_
							rse Oı							-	_
CO1	Asse	ss inte	rests aı	nd abil	ities in	their	field or	study			-				_
CO ₂	Lear	n to ap	preciat	e worl	c and i	ts func	tion in	the ec	onomy	,	-				
CO3	Deve	lop co	mmun	ication	, inter	person	al and	other c	ritical	skills		_			-
							)-PSO			JIIII			-		-
COs							Os							PSOs	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	2	2			2	2	2	2	2	2		2	2		_
CO2	2	2			2	2	2	2	2	2		2	2		
CO3	2	2			2	2	2	2	2	2		2	2		
Average	2	2			2	2	2	2	2	2		2	2		

Subject:	Proje	ct Phase	e II							Subj	ect Co	ode: 17	CVP	35	
		1100				Cou	rse Ou	tcome	s					-	
CO1	For	nulate t	he pro	ject o	bjective	e by d	etailed	literat	ire rev	riew					
CO ₂	Con	duct the	e expe	rimen	tal/anal	vtical	work t	o achie	eve the	object	ives		10000		_
CO3	Prep	are the	detail	ed rep	ort base	ed on	the exr	erime	ntal/an	alvtica	Lwork		_		
CO4	Con	nmunica	ate and	d prese	ent the	projec	t at dif	ferent	nlatfor	ms	I WOIN		-		_
							)-PSO			1113	_				
COs		200000000000000000000000000000000000000				P	Os							PSOs	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO ₁	2	3		1	1								3	3	
CO2				3	2								3	3	-
CO3	2	2	2	2	3		1	-		3			3	3	
CO4	2	2	2	2	3		1			3				-	
Averag	2	2.3	2	2			1			3			3	3	
e	2	3	2	2	2.2								3	3	

Subject:	Semin	ar						200		Sub	ect Co	ode:17	CVS86	5	
						Cou	rse Oi	itcome	es			2 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1			
CO1	Worl	k in ac	tual wo	orking	enviro	nment	and ut	ilize te	chnica	l resou	rcec				
CO2	Find	approp	oriate s ted into	ources	that c	an be s	summa	rised, į	give or	al pres	entatio	ns rela	ted to	the wo	rk
CO3			ndeper							3					
CO4							lata kr	owled	ge and	results	ofon	~inasu!		1.	
CO5	Dem	onstrat	e the a	bility t	o asses	ss and	report	io wicu	ge and	resum	or en	gmeen	ng stud	aies	
	ur en						)-PSO	Mapp	ing			-			
COs							Os		- 6					PSOs	
	1_	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	_ 2					2	2	2				2	2	2	_
CO ₂	2				8	2	2	2				2	2	2	
CO3	2					2	2	2				2	2	2	
CO4	2					2	2	2				3000		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
CO5	2					2	2	2		-		2	2	2	
Average	2				-			N-9		Table 11 Bellin		2	2	2	
2.0146	4					2	2	2				2	2	2	