RGPV WING) I					ICULUM FOR COURSE	FOR		Sheet No.1/1						
Branch	Archi	tecture a	nd Interi	ior Design		Sem	ester	III						
Course	Code	30)4	Course Name	SURVEYING & LEV	ELLING	l T							
Course	Outco	ome1	instru	ments viz. CHAI	andledifferenttypesofsurveyingTeachviz.CHAIN, COMPASS, and PLANEHrshe field operations.									
Learning	g Out	come 1			e able to perform linear measurement using and principles of chain surveying. 15 10									
Co Method o	ntents		 Prin Instruction etc. 	 ciples and basic con Advantages a in chaining, Ranging, offs Basic term and etc. 	tion of surveying, Classification cepts of chain surveying: nd limitations, numerication ets, obstructions, and mo definitions e.g. base line, the in survey e.g. chains, offso ogressive Test-I)	ll exercis ethods tie line, m	es base nain stat	d on errors ion, tie stations						
Learning														
Со	ntents	5	• Basi	 ss Surveying c principle and related theories of compass surveying: Advantages and limitations, Basic term and definitions viz. meridians, traverse, and bearing, etc. Systems of bearing i.e. whole circle system and reduced bearing system, numerical exercises based on: conversion of WCB to RB or vice versa, Fore bearing to back bearing or vice versa, Elimination of local attraction, Instruments used i.e. compass etc. Plotting and adjustment of closing errors. 										
Method o	f Asse	ssment	Exte	ernal - Theory (Writ	ten Test)									

Learning Outcome 3	Student will be able to select appropriate method of Plane table surveying and prepare drawing with suitable scale.	10	20
Contents	 Plane Table Surveying Principles and basic concepts Various methods used in plane table surveying Instruments used viz. plane table, alidade, plumbing fork a Advantages and limitations. 	nd tripod e	tc.
Method of Assessment	External - Theory (Written Test)		
Course Outcome2	Prepare level profile of a small piece of land using common leveling instrument (i.e. Dumpy Level/Auto Level).	Teach Hrs	Marks
Learning Outcome 1	Student will be able to apply basic concept and principle of Levelling on the field.	3	10
Contents	 Levelling Principle and basic concepts Basic terms and definitions viz. datum, level surface, level mark etc. Instruments used i.e. levels, levelling staffs, and telescope 		nd bench
Method of Assessment	Internal - Sessional (Term work)		
Learning Outcome 2	Student will be able to prepare level profile by determining relative position of various points/stations on ground and plotting plans/maps.	10	15
Contents	 Methods of working out reduced level of stations: Height of instrument method, Rise and fall method, Numerical exercises related to the above, 		<u>.</u>
Method of Assessment	External – Practical		
Learning Outcome 3	Student will be able to analyze contour map.	2	10
Contents	 Contouring: Basic terms and definitions viz. contour, contour ir equivalent etc. Characteristics and uses of contours, Methods and plotting of contours, Contour maps of various natural features i.e. pond planes etc. 		

Method of Assessment	Internal - Sessional (Progressive Test-II)		
Course Outcome 3	Student will be able to use total station in the field of engineering land survey.	Teach Hrs.	Marks
Learning Outcome1	Student will be able to carry out survey work using Total station	05	20
Contents	 Advanced Digital Instruments: Introduction to advanced digital instruments i.e. Total stati Techniques of finding angles and distances. 	on,	
Method of Assessment	External - Theory (Written Test)		
Learning Outcome2	Student will be able to prepare digital maps and workout areas / levels of small fields using advanced digital instruments (Total Station) through transfer of survey data in related software.	05	15
Contents	 Advanced Digital Instruments: preparation of digital map through exchange of survey data software. 	a using rela	ted
Method of Assessment	External – Practical		
Course Outcome 4	Use GIS tools/ techniques to integrate GIS maps into CAD systems.	Teach Hrs.	Marks
Learning Outcome 1	The student will be able to summarize the basic principles of GIS in the field of engineering.	05	15
Contents	 Basics Of GIS: Introduction to Geospatial information system (GIS) Basic techniques and concepts Available tools and software 		1
Method of Assessment	External - Theory (Written Test)		
Learning Outcome 2	The student will be able to transfer and manage field data into CAD system.	05	20
Contents	 Basics Of GIS: Integration of GIS maps into CAD systems. 		_
Method of Assessment	Internal-Sessional (Lab work)		

				Scheme for		Br	anch Cod	e	С	ourse Co	ode	CO Code	LO Code		
RGP		oma Wi	ing) Bhopal	Learning Outco	me	Α	0	5	3	0	4	1	1	Format No. 4	
COURS	E NAME	SURVEY	ING & LEVELLING			-				1					
CO Des	cription	Student v	vill be able to use and	handle different types of s	survey	ing insti	rumen	ts viz	. Chai	n, Coi	npass an	nd Pla	ne tab	le for the field ope	rations.
LO Des	cription	Student w	ill be able to perform	linear measurement using	g basic	concept	ts and	princ	ciples o	of chai	in survey	ing .			
				SCHE	ME O	F STUD	γ								
S. No.		Learning	Content	Teaching-Learning Method	De	escripti	on of	T-L I	Proce	SS	Teach Hrs.		ract. /Tut Hrs.	LRs Required	Remarks
1.1	 survey Princip survey Advan nume in cha Rangi metho Basic to line, ti etc. Instrut 	uction and o ving, Classifi oles and bas ving: ntages and rical exerci- ining, ing, offsets ods term and de e line, main ments used s, offset rods	definition of cations of surveying. sic concepts of chain limitations, ises based on errors , obstructions, and efinitions e.g. base station, tie stations in chain survey e.g. s, cross staff, and	 Lecture Field Demonstration 	 T p T a 	Teacher w The stude practical is Teacher w mong stu nowledg	ent will in grou vill con udents	perfo p. iduct	orm quiz		09		06	 Chalk-Board Projector Field book Stationery Video Lab manual 	
				SCHEME	OF A	SSESSN	/IENT								
S. No.		od of sment		Description of Assessn	nent				N	laxin	num Ma	arks			ternal / nternal

1	Progressive Test-I	1. Objective, Short Answer and Descriptive questions	10	Instruments used in practical & Field book	Internal (Term work)
		ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACU	ILTY (IF ANY)		

			Scheme for	B	ranch Co	de	0	Course C	Code	CO Code	LO Code		^
RGP		ma Wing) Bhopal	Learning Outcome	e A	0	5	3	0	4	1	2	Format No.	4
COURS	E NAME	SURVEYING & LEVELLING				1					1		
CO Des	cription	Student will be able to use and	l handle different types of surve	eying ins	trume	nts viz	z. Cha	in, Co	ompass a	and Pl	ane ta	able for the field	operations.
LO Deso	cription	Student will be able to differer	ntiate WCB system and RB syst	em of bea	ring a	nd pei	rform	angu	lar mea	surem	ent us	sing prismatic co	mpass.
	I		SCHEME C	OF STUD	Y								
S. No.		Learning Content	Teaching- Learning Method	Descri	otion	of T-L	Proc	cess	Teach Hrs.	ר/ '	act. Tut rs.	LRs Required	Remarks
1.2	 Basic p compa Advant Basic te travers System reduce numeri o o Instrum 	Surveying principle and related theories of ss surveying: tages and limitations, erm and definitions viz. meridian se, and bearing, etc. as of bearing i.e. whole circle systend bearing system, ical exercises based on: conversion of WCB to RB or vice Fore bearing to back bearing on versa, Elimination of local attraction nents used i.e. compass etc. g and adjustment of closing erro	e versa, r vice	cont handThe	ther wi ents an louts to student tical in	d prov studen t will p	ide nts perforr		09	()6	 Chalk- Board Text book Stationery 	
			SCHEME OF A	SSESS	IENT								
S. No.		od of sment	Description of Assessmen	t			P	Maxir	num N	larks		Resources I Required	External / Internal

1	External - Theory (Written Test)	Objective, Short Answer and Descriptive questions.	15	Instruments used in practical & Field book	External
		ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACU	LTY (IF ANY)		

				Scheme	for	В	ranch Coo	de		Course Co	ode	CO Code	LO Code		л
KGP		ma w	/ing) Bhopal	Learning Ou	utcome	Α	0	5	3	0	4	1	3	Format No	o. 4
COURS		SURVE	YING & LEVELLIN	IG				•	•	•	•		•		
CO Des	cription	Student	will be able to use a	nd handle different typ	pes of surveyir	ng ins	trume	nts viz	. Cha	in, Co	mpass	and Pl	ane tal	ble for the fie	d operations.
LO Desc	cription	Student	will be able to select	appropriate method of	f Plane table s	urvey	ing and	d prep	are d	rawin	g with	suitabl	e scale	e.	
				S	SCHEME OF S	STUD	Y								
S. No.	Le	earning	Content	Teaching- Learning Method	Descripti	ion of	T-L P	roces	s	Teacl Hrs.		Pract. Fut Hrs	, L	.Rs Required	Remarks
1.3	 Various table su Instrum alidade, etc. 	les and b s method urveying nents use , plumbir	eying asic concepts s used in plane ed viz. plane table, ng fork and tripod limitations.	•Lecture • Group discussion	 Teacher wi and provide and guide the on the intern The studen the classroor 	handou em for et t will p	uts to study i	tudent materi	s, al	4		6		halk-Board, te ook, Stationery	
				SCH	EME OF ASS	ESSM	IENT								
S. No.	Methoo Assessm			Description of Ass	essment				ſ	Maxin	num M	Marks		esources Required	External / Internal
1External - Theory (Written Test)Objective, Short Answer ,and					e questions						20		us	struments sed in cactical	External (Theory)

				Schem	ne for	В	anch Co	de	(Course C	ode	CO Code	LO Code		л
KGP		ma v	Ving) Bhop	al Learning (Outcome	A	0	5	3	0	4	2	1	Format No.	4
COURS	E NAME	SURVE	YING & LEVELI	LING					1		1		1		
CO Des	cription	Studen	t will be able to pr	epare level profile of a	small piece of la	nd usi	ng con	nmon	leveli	ng ins	trume	ent (i.e. l	Dump	y Level/Auto Le	evel).
LO Dese	cription	Student	will be able to ap	ply basic concept and p	orinciple of Leve	lling o	n the f	ield.							
					SCHEME OF	STUD	Y								
S. No.	Lea	arning	Content	Teaching- Learning Method	Descripti	ion of	T-L P	roces	s		ach rs.	Prac /Tut H		LRs Required	Remarks
2.1	 Basic te datum, R.L., and Instrum 	erms and level su d bench nents use	asic concepts d definitions viz. rface, level line, mark etc. ed i.e. levels, and telescope	LecturePower point presentation	 Teacher will e provide handou them for study r The student w classroom. 	ts to st materia	udents. 1 on th	, and g e inter	uide net		3	-		Chalk-Board, text book, Field book, Stationery.	
				S	CHEME OF ASS	ESSM	ENT								
S. No.	Method Assessm			Descript	ion of Assessm	ent						Maxi m Ma		Resources Required	External / Internal
1 Sessional (Term work) Teacher will assess student's performance based on: Performance in assignment Timely submission of assignment Attendance in classes Attitude/Behavior 											10		Instruments used in practical	Internal	

			1	Sch	eme for	B	ranch Co	de	C	ourse Co	de	CO Code	LO Code		л
ν (υιριο	ma v	ving) Bho	opai	Learnir	ng Outcome	Α	0	5	3	0	4	2	2	Format No.	4
	SURVE	YING & LEV	ELLING	ŕ		1	1	1	1				1		
cription	Student	t will be able to	o prepar	e level profile	of a small piece of la	nd us	ing cor	nmon	leveli	ng inst	rume	ent (i.e. I	Dumpy	y Level/Auto L	evel).
cription	Student	will be able to	prepare	e level profile	by determining relat	ive po	sition o	of vari	ous p	oints/s	tation	is on gro	ound a	nd plotting pla	ns/maps.
					SCHEME OF	STUD	Y								
Lear	rning Co	ontent		•	Descriptio	n of 1	-L Pro	ocess					-	LRs Required	Remarks
 Mumerical exercises related Video The student will perform practical in group. 									4	6		,			
					SCHEME OF ASS	ESSN	IENT								
				Desc	ription of Assessm	ent								Resources Required	External / Internal
*										ber)		15		practical &	External
	E NAME cription cription Lean • Method reduce > Hei me > Rise • Numer to the a	E NAME SURVE cription Student cription Student Learning Co • Methods of wo reduced level o > Height of in method > Rise and fal • Numerical exert to the above	E NAME SURVEYING & LEV cription Student will be able to Cription Student will be able to Learning Content Learning Content Methods of working out reduced level of stations: Height of instrument method Method of Method of Assessment Teacher w Method of Assessment Teacher w Practical Teacher group Open group Teacher group Timely Teacher group	criptionStudent will be able to preparecriptionStudent will be able to prepareLearning ContentTeach Learning• Methods of working out reduced level of stations: > Height of instrument method > Rise and fall method• Lea • Fie • Via• Method of Assessment• Ceacher will assess 1. Participation of s 2. Peer group learning 3. Timely submission	Learning Content Learning E NAME SURVEYING & LEVELLING Learning cription Student will be able to prepare level profile cription Student will be able to prepare level profile cription Student will be able to prepare level profile Learning Content Teaching-Learning Method • Methods of working out reduced level of stations: > Height of instrument method > Rise and fall method • Numerical exercises related to the above Method of Assessment Descr Practical Teacher will assess student's performing 1. Participation of student as indiving 2. Peer group learning attitude 3. Timely submission	V (Diploma Wing) Bhopal Learning Outcome E NAME SURVEYING & LEVELLING cription Student will be able to prepare level profile of a small piece of la cription Student will be able to prepare level profile by determining relat cription Student will be able to prepare level profile by determining relat SCHEME OF SCHEME OF Learning Content Teaching- Learning Method • Methods of working out reduced level of stations: • • • Height of instrument method • • Rise and fall method • • Numerical exercises related to the above • Method of Assessment Teacher will assess student's performance based on: 1. Participation of student as individual/in a group (Lead 2. Peer group learning attitude 3. Timely submission	V (Diploma Wing) Bhopal Learning Outcome A E NAME SURVEYING & LEVELLING Image: Content will be able to prepare level profile of a small piece of land using cription Student will be able to prepare level profile by determining relative points of the student will be able to prepare level profile by determining relative points of the student will be able to prepare level profile by determining relative points of the student will be able to prepare level profile by determining relative points of the student will be able to prepare level profile by determining relative points of the student will be able to prepare level profile by determining relative points of the student of the student of the above SCHEME OF STUD • Methods of working out reduced level of stations: • Lecture • Teacher will explain the provide handouts to stations of the student will perfore to the above • Numerical exercises related to the above • Video • The student will perfore the student will perfore the student of the above Method of Assessment Teacher will assess student's performance based on: 1. Participation of student as individual/in a group (Leader as the student of student as individual/in a group (Leader as the student of student as individual/in a group (Leader as the student of student as individual/in a group (Leader as the student of student as individual/in a group (Leader as the student of student as individual/in a group (Leader as the student of student as individual/in a group (Leader as the student of student as individual/in a group (Leader as the student of student as individual/in a group (Leader as the student of student as individual/in a group (Leader as the student of student	V (Diploma Wing) Bhopal Learning Outcome A 0 E NAME SURVEYING & LEVELLING Image: Content Image: Content Image: Content Image: Content Image: Content SCHEME OF STUDY Image: Content Teaching- Learning Method Image: Content Image: Content	V (Diploma Wing) Bhopal Learning Outcome A 0 5 E NAME SURVEYING & LEVELLING Evention Student will be able to prepare level profile of a small piece of land using common cription Student will be able to prepare level profile by determining relative position of vari cription Student will be able to prepare level profile by determining relative position of vari Scheme OF STUDY Cearning Content Teaching-Learning Method • Methods of working out • Lecture • Height of instrument • Lecture • Field exercises • Teacher will explain the contents and provide handouts to students. • Rise and fall method • Video • • Numerical exercises related to the above • Scheme OF ASSESSMENT Method of Assessment Description of Assessment Scheme Of student as individual/in a group (Leader as well as a tean 2. Peer group learning attitude 3. Timely submission	V (Diploma Wing) Bhopal Learning Outcome A 0 5 3 E NAME SURVEYING & LEVELLING Events Image: Student will be able to prepare level profile of a small piece of land using common leveling common leve	V (Diploma Wing) Bhopal Learning Outcome A 0 5 3 0 E NAME SURVEYING & LEVELLING Student will be able to prepare level profile of a small piece of land using common leveling instruction Student will be able to prepare level profile of a small piece of land using common leveling instruction Student will be able to prepare level profile by determining relative position of various points/s Student will be able to prepare level profile by determining relative position of various points/s SCHEME OF STUDY Learning Content Teaching-Learning Method Description of T-L Process Teacher will explain the contents and provide handouts to students. • Methods of working out reduced level of stations: • Lecture • Teacher will explain the contents and provide handouts to students. • The student will perform practical in group. 4 • Numerical exercises related to the above • Video SCHEME OF ASSESSMENT 4 Method of Assessment Description of Assessment Teacher will assess student's performance based on: 1. Participation of student as individual/in a group (Leader as well as a team member) 2. Peer group learning attitude 3. Timely submission 4 5 3 0	V (Diploma Wing) Bhopal Learning Outcome A 0 5 3 0 4 E NAME SURVEYING & LEVELLING cription Student will be able to prepare level profile of a small piece of land using common leveling instrumed cription Student will be able to prepare level profile by determining relative position of various points/station cription Student will be able to prepare level profile by determining relative position of various points/station SCHEME OF STUDY Learning Content Teaching- Learning Method Description of T-L Process Teach Hrs. • Methods of working out reduced level of stations: > Height of instrument method > Rise and fall method • Lecture • Field exercises • Video • Teacher will explain the contents and provide handouts to students. • The student will perform practical in group. 4 Method of Assessment Description of Assessment 4 Method of Assessment Description of Assessment 2 Practical Teacher will assess student's performance based on: 1. Participation of student as individual/in a group (Leader as well as a team member) 2. Peer group learning attitude 3. Timely submission	V (Diploma Wing) Bhopal Learning Outcome A 0 5 3 0 4 2 E NAME SURVEYING & LEVELLING Surveying & Marking & Surveying	V (Diploma Wing) Bhopal Learning Outcome A 0 5 3 0 4 2 2 E NAME SURVEYING & LEVELLING cription Student will be able to prepare level profile of a small piece of land using common leveling instrument (i.e. Dump) cription Student will be able to prepare level profile by determining relative position of various points/stations on ground a SCHEME OF STUDY Teaching-Learning Method Description of T-L Process Teach Hrs. Pract. • Methods of working out reduced level of stations: • Lecture • Teacher will explain the contents and provide handouts to students. • The student will perform practical in group. 4 6 • Numerical exercises related to the above • Description of Assessment 4 6 Method of Assessment Description of Assessment Instrument in Markis Maximu m Marks 15 Practical 0. Peer group learning attitude 3. 0 15 15	V (Diploma Wing) Bhopal Learning Outcome A 0 5 3 0 4 2 2 Format No. E NAME SURVEYING & LEVELLING SURVEYING & LEVELLING Format No. Format No. Format No. cription Student will be able to prepare level profile of a small piece of land using common leveling instrument (i.e. Dumpy Level/Auto I and plotting pla cription Student will be able to prepare level profile by determining relative position of various points/stations on ground and plotting pla SCHEME OF STUDY Eearning Method Description of T-L Process Teach Pract. LRs Required • Methods of working out reduced level of stations: • Lecture • Teacher will explain the contents and provide handouts to students. 4 6 Chalk-Board, Field book, Stationery. • Numerical exercises related to the above • Video • Teacher will explain the contents and provide handouts to students. 4 6 Chalk-Board, Field book, Stationery. • Numerical exercises related to the above • Video • Teacher will exercises • The student will perform prac

		\V		Schem	e for	В	ranch Co	de		Course C	ode	CO Code	LO Code	2	л
KGP		oma v	Ving) Bhopal	Learning C	outcome	A	0	5	3	0	4	2	3	Format No.	4
COURS	E NAME	SURVE	YING & LEVELLIN	G		•					_	•	•		
CO Des	cription	Studen	t will be able to prepa	re level profile of a s	mall piece of la	nd usi	ng con	nmon	leveli	ng ins	strume	ent (i.e. l	Dump	y Level/Auto L	evel).
LO Des	cription	Student	will be able to analyz	e contour map.											
					SCHEME OF	STUD	Y								
S. No.		Learnin	g Content	Teaching- Learning Method	Descript	ion o	f T-L P	Proces	SS		each Irs.	Prac /Tu Hrs	ıt	LRs Required	Remarks
2.3	 Bail Control Control Note Control Co	ontour, co orizontal e haracteris ontours, lethods ar ontours, ontour ma atural feat	and definitions viz. Intour interval, and equivalent etc. Itics and uses of and plotting of aps of various tures i.e. pond, hill, and planes etc.	 Lecture Field exercises Video 	 Teacher w and provid The studer in group. 	le hand	louts to	stude	nts.		2			Chalk-Board, Projector, Text book	
				SC	HEME OF ASS	ESSN	IENT								
S. No.	Metho Assess			Description	n of Assessme	ent					P	/laximu Marks		Resources Required	External / Internal
1	Progressiv	Answer and Descriptiv	ve questions.							10	1	Instruments used in practical	Internal		

				Scheme	for	В	anch Coc	le		Course C	ode	CO Code	LO Code		n
KGP	ν (υιριο	ma v	Ving) Bhopal	Learning Ou	ıtcome	A	0	5	3	0	4	3	1	Format No.	+
COURS	E NAME	SURVE	YING & LEVELLI	NG		•			•	•	•	•			
CO Des	cription	Studen	nt will be able to us	e total station in the fi	ield of engine	eering	land	surve	ey.						
LO Des	cription	Student	will be able to carry	out survey work by tak	king linear as	well a	s angu	lar m	easur	ement	using	Total s	tation.	•	
	L. L			S	CHEME OF S	STUD	ſ								
S. No.	Le	earning	Content	Teaching-Learning Method	Descripti	on of	T-L Pi	roces	s	Tea Hrs		Pract /Tut H		LRs Required	Remarks
3.1	 Introduinstrum ▶ Test 	uction to nents i.e. chnique	l Instruments: advanced digital . Total station, s of finding distances.	LecturePPTExpert lecture	 Teacher contents to studer The stud practical 	and pr nts. ent wi	ovide l l perfo	nando	uts	2		3	V	Chalk-Board, e- Videos, Projector, e-Books.	
				SCHI	EME OF ASS	ESSIV	ENT								
S. No.	Metho Assessm	_		Description	of Assessm	ent						Maxi m Ma	_	Resources Required	External / Internal
1	Written	test		•		ler as v	vell as	a tean	n men	iber)		20		Instruments used in practical	Theory
	1	I	A	DDITIONAL INSTRUC	FIONS FOR 1	ГНЕ Н	OD/ F	ACU	LTY (I	IF AN	Y)		I	I	

				Scheme for		Branch Code Course Code					ode	CO Code	LO Code		л
KGPV		ma v	Ving) Bhopa	Learning Ou	Learning Outcome			5	3	0	4	3	2	Format No.	4
COURS		SURVE	CYING & LEVELLI	NG		1				1		•			
CO Description Student will be able to use total				total station in the field o	f engineerin	g land	survey	7.							
LO Deso	crintion	Student will be able to prepare digital maps and workout areas / levels of small fields using advanced digital instruments (Total Station) through transfer of survey data in related software.													tion) through
				SC		STUD	Y								
S. No.	Le	earning	g Content	Teaching-Learning Method	Description of T-L Process Teach Hrs.							Pract /Tut H		LRs Required	Remarks
3.1	> pre thro	eparation ough e	l Instruments: n of digital map xchange of survey related software.	LecturePPTWorkshop	 Teacher will explain the contents and provide handouts to students. The student will perform practical in group. 							3	C	Chalk-Board, e- content, Total station.	
	1			SCHE	ME OF ASS	SESSIV	IENT								
S. No.	Methoo Assessm	Description of Assessment										Maxiı m Ma	-	Resources Required	External / Internal
1	Externa Practic	2 Peer group learning affitude										15		Instruments used in practical	External (Practical)
	1		A	DDITIONAL INSTRUCT	IONS FOR	THE H	OD/ F	ACU	LTY (I	F AN	Y)			I	

				Scheme for			Branch Code				Course C	ode	CO Code	LO Code		Л
RGPV (Diploma Wing) Bhopal					Learni	Α	0	5	3	0	4	4	1	Format No.	4	
COURS	E NAME	SURVEY	ING & I	LEVELLING	ŕ		•		•		_	•				
CO Des	cription	The stude	ent will	be able to use	GIS tools/ te	echniques to integrate	GIS	naps ii	nto CA	AD sy	stems.					
LO Description The student will be able				be able to s	ummarize tl	he basic principles o	of GIS	in the	e field	of e	ngine	ering.	•			
						SCHEME OF	STUD	Y								
S. No.	Learning Content			Teaching-L Method	earning	n of T-L Process Hrs.					Pract. /Tut Hrs.		LRs Required	Remarks		
4.1	 Basics Of GIS: Introduction to Geospatial information system(GIS) Basic techniques and concepts Available tools and software 			LecturePPTWorksho	 Teacher will explain the contents and provide e-content related to topics. The student will perform practical individually.)2	03				
						SCHEME OF ASS	ESSN	IENT								
S. No. Method of Assessment					Description of Assessment								Maxin Mar		Resources Required	External / Internal
1	External (Writte		Obj	ective, Short A	Answer and D	escriptive questions.							15		LAB, ArcGIS software	External
	1			ADD	ITIONAL IN	STRUCTIONS FOR 1	ГНЕ Н	OD/ F	ACU	.TY (IF AN	Y)				<u>I</u>

				Scheme for			Branch Code C			Course Code		CO Code	LO Code		
KGP	v (Dipior	na Wing) Bhopai	Learr	ning Outcome	A	0	5	3	0	4	4	2	Format No.	4
COURS	E NAME S	URVEYING	& LEVELLING	Ţ		L		1	1	L			1		
CO Des	cription	The student w	lent will be able to use GIS tools/ techniques to integrate GIS maps into CAD systems.												
LO Des	cription	The student w	ll be able to tra	nsfer and 1	manage field data into (CAD sy	stem.								
					SCHEME OF	STUD	Y								
S. No.	Learnin	g Content	Teaching-L Method	earning	B Description of T-L Process Teach Hrs.							Prac /Tut I	-	LRs Required	Remarks
4.2	•	GIS: on of GIS maps) systems.			 Expert lecturer will cover the contents and provide handouts to the students. The student will perform practical individually(Hands on practice). 						02	03		LAB, ArcGIS software	
					SCHEME OF ASS	ESSN	IENT							I	
S. No.	Metho Assessr			Description of Assessment								Maxir Mai		Resources Required	External / Internal
1	Internal-Se (Lab w		1. Participation									20		Instruments used in practical	Internal
	1		ADD	DITIONAL		THE H	OD/ F	ACU	LTY (I	F AN	Y)				