DODU			•	SCHEM	IEFORLEARNING	Branch	Code	Cou	ırse Code	CO Code	LO Code	Format No
RGPV	(Diplom	a Wing) Bhopa	l	(DUTCOME	E 0	3	5	0	1	1	4
COURS	E NAME	Power Electroni	CS		· · · · · · · · · · · · · · · · · · ·							1
CO Desc	ription	Identify different	Power Ele	ctronic devices	, their characteristics and applic	cations.						
LO Desc	ription	Classify different p	ower diode	s and power tran	sistors and list their applications.							
		1			SCHEME OF STUDY							
S. No.	Lear	ning Content	Teach	ing –Learning Method	Description of T-L Process	Teach Hrs.	Pra I	ct./ Tut Hrs.	L	Rs Requi	ired	Remarks
LO-01	Power Elect advantages application Construction symbol, ch application Power dio Rectifier di diode. Power tran Power tran Power MO Special fe of fast reco diodes, IGI	ctronics: Concept, s, disadvantages, is. on, working principle aracteristics, and is of: des - iodes & schottky nsistors - iSFET. ature and Symbol overy diodes, MOS BT, Power BJT	Interactiv lecture, P Demonstr assignme	e classroom PT, Video, ration, quiz, nts.	Teacher will introduce subject and encourage students to identify and list key applications. Teacher will explain the contents and provide handouts to students Teacher will conduct assignments/ quiz/tutorial to make students practice their knowledge.	6			Text B Hando board, lecture- other or	ooks, PI uts, chal charts, V NPTEL iline reso	PT, k Video and ources.	
					SCHEME OF ASSESSMENT							
S. No.	Methodo	fAssessment		Descrip	tion of Assessment		Maxi Marl	mum xs	Resour	ces Requ	ired	External / Internal
LO-01	Internal Assign	Progressive Test/ ment/Quiz	Student w 1.List ad electron 2.Identify constru 3.Draw t their ar	vill be asked to vantages, disad nics y given Power I action and chara he symbol of va polication.	(and/or):- vantages, applications of power Electronic devices and relate the acteristics arious power electronic devices	eir and list		10	Qu rubr	uestion I ics, Rati	Paper, ng scale	Internal

	*Explore online resources and prepare a presentation on a particular application of power electronics as a case study at start and end of course. Suggested list attached in LO14 . Marks will be awarded for this activity as per LO14.		

			SCHEMEFO	RLEARNING	Branch Coo	le	С	ourse Co	de	CO Code	LO Code	Λ
KGPV		ia wing) bhopai	OUT	COME	E 0	3	5	0		1	2	FormatNo.4
COURS	SE NAME	Power Electronics		· · · · ·	'						· · ·	
CO Dese	cription	Identify different Power Ele	ectronic devices, their c	haracteristics and applicat	ions							
LO Deso	cription	Outline different members of	of the thyristor family.									
			S	CHEME OF STUDY								
S. No.	Lear	rning Content	Teaching –Learning Method	Description of T-L Process	Teach Hrs.] /T	Pract. ut Hrs	5.	Lŀ	ks Requ	ired	Remarks
LO-02	Thyristor devices: working p characteri SCR, DIA Special fe MGT, ET Programm (PUT), Co transistor Switch (S Switch (S	family and other triggering principle, symbols, stics and applications of AC, TRIAC, UJT eature and symbols of GTO, O, MTO, nable Unijunction transistor poplementary Unijunction (CUJT), Silicon Unilateral US), Silicon Bilateral BS).	Interactive classroom lecture, PPT, Video, Demonstration, quiz, assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct assignments/ quiz/tutoria to make students practice their knowledge.	8			T H cl N or	ext Bo landou harts, ` IPTEL nline r	oks, P ts, cha Video I and of esourc	PT, lk boar ecture- hers es.	d,

		SCHEME OF ASSESSMENT			
S. No.	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal
LO-02	External End sem Theory Exam.	 Student will be asked to(and/or): Identify different Power Electronic devices and outline the construction and characteristics of any one or more. Draw the symbol of various power electronic devices and list their application. Match the column for device name and corresponding symbols/features. 	10	Question paper, Rating scale	External

DODU	(D! 1	- W ²) DL]	S	CHEMEFORLEARNING	r	Branc	ch Code	e	C	ourse Co	de	CO Code	LO Code	
KGPV	(Diplom	a wing) Bh	opai		OUTCOME	1	E	0	3	5	0		1	3	FormatNo.4
COURS	E NAME	Power Elect	ronics								1		1	1	1
CO Desc	ription	Identify diffe	erent Power	Electronic	devices, their characteristics and	l applica	tions.	•							
LO Desc	ription	Verify charac	teristics of p	ower elec	tronics devices.										
					SCHEME OF STUI	DY									
S. No.	Lear	ming Content	Teach Learning	ing– Method	Description of T-L Process	Teach Hrs.] /T	Pract ut H	t. rs.	I	LRs R	equire	d		Remarks
LO-03	Character BJT, powe IGBT, SC UJT, Diac	istics of power er MOSFET, R c, Triac	Lab demons hands on pr assignments	stration, actice, lab s, V-Lab.	 Teacher will explain the contents Teacher with support from lab staff will demonstrate the procedure of lab experiments. Student will conduct lab assignment based on these experiments 	-		5		Traine with n instrum with r softwa interne	er inst neasu ments elevan are an et.	rumer ring , com nt sim d high	nts/kit puter ulatior n speec	1	
			•		SCHEME OF ASSESS	MENT									
S. No.	Method	of Assessment		De	scription of Assessment		Ma	axim Mar	um ks		Resou	rces Ro	equired		External / Internal
LO-03	Externa Practica	al end semester al Exam	Stude Verify IGBT,	ent will be Character SCR, UJT	asked to : istics of power BJT, power MOS ſ, Diac, Triac	SFET,		15	5		Rub scale	rics,	Ratin	5	External

		:		SCH	IEMEFORLEARNING	В	ranch Cod	e	Cour	se Code	CO Code	LO Code	
KGPV (D	upioma w	ing) Bhopai			OUTCOME	E	0	3	5	0	2	4	Format No. 4
COURSE N	AME	Power Electron	nics						I			-	-
CO Descript	ion	Analyze operat	tion of SCR.										
LO Descript	ion	Discuss turn or	n method and	d protection	techniques of Silicon Controlled Re	ectifier.							
					SCHEME OFSTUDY								
S. No.	Learn	ing Content	Teacl Learning	hing– g Method	Description of T-L Process	Teach Hrs.	P /Tu	Pract. 1t Hrs.		LRs I	Required		Remarks
LO-04	Silicon Co. (SCR): dy characteris methods (H on, High te on, Light tu on, Gate tu Overvoltag Overcurrer Protection, Protection	ntrolled Rectifier namic tic, turn-on High voltage turn- emperature turn- urn-on, dv/dt turn- rn-on). ge Protection, at Protection, Gate Over temperature of SCR.	Interactive of lecture, PPT Demonstra quiz, assig	classroom (, Video, ation, nments.	• Teacher will explain the contents and provide handouts to students. Teacher will conduct assignments/ quiz/tutorial to make students practice their knowledge.	8		-	Text Hanc chart NPT resou	Books louts, c s, Vide EL and rces.	, PPT, chalk boa eo lecture l others o	rd, e- nline	
	I		1		SCHEME OF ASSESSMEN	Г							1
S. No.	Method	of Assessment		Desci	ription of Assessment		Maxin Ma	num rks	R	esource	s Required	l	External / Internal
LO-04	External Exam.	End sem Theory	Studer 1. De 2. Dr 3. Sug current voltage	nt will be as escribe one of raw dynamic ggest suitabl t/ high voltage/ gate prote	Sked to (and/or): or more turn on methods of SCR. characteristic of SCR. le protection of SCR against high ge/ fast rise in current/ fast change is ction and/or over temperature prote	in ection	1	0	C S	uestion	n paper, Ra	ating	External
			ADD	DITIONAL	INSTRUCTIONSFORTHEHOD/	/FACUL	TY(IF.	ANY)					

παπι	(D! 1		SCHE	ME FOR LEARNING	T	Branch Coo	le	0	Course Co	de	CO Code	LO Code	1
KGPV	(Diplom	ia wing) Bhopai		OUTCOME	E	E 0	3	5	0		2	5	FormatNo.
COURS	E NAME	Power Electronics	s		I	I		I		I			1
CO Desc	cription	Analyze operation	of SCR.										
LO Desc	ription	State principle of fi	iring circuits and com	mutation technique of SCR.									
				SCHEME OF STUE	ŊŶ								
S. No.	Lear	rning Content	Teaching –Learning Method	Description of T-L Process	Teach Hrs.	Prac /Tut H	et. Irs.]	LRs R	equired			Remarks
LO-05	Firing Circu firing circu Circuit, UJ DIAC Firin Thyristor 7 (waveform diagram) Natural Co Commutat A,B,C,D,E	cuits: Main features of uits, RC Firing JT Firing Circuit, ng Circuit. Furn-off Method h, working and circuit pommutation, Forced ion (Class 2,F)	Interactive classroom lecture, PPT, Video, Demonstration, quiz, assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct assignments/ quiz/tutorial to make students practice their knowledge.	8			Text I Hando charts NPTE	Books outs, c s, Vide L and	, PPT, chalk bo co lecture others.	oard, e-		
				SCHEME OF ASSESSM	MENT								
S. No.	Method	l of Assessment	Descriț	tion of Assessment		Maxim Mar	um ks		Resou	rces Req	uired		External / Internal
LO-05	Exter	nal End sem Theory Exam.	 Student will be asked Draw and explain Select suitable Identify and extechnique used List of features 	d to (and/or) ain the various firing circuit. firing circuit for an application plain the commutation required in firing circuits.	on.	10)	(Questic	n paper, I	Rating	scale	External

DODU	(D! . I			SCH	EMEFORLEAR	NING	Branch Coo	le	0	Course Co	de (CO Code	LO Code	Δ
KGPV	(Diplom	a wing) Bhopa	l		OUTCOME	E	0	3	5	0		2	6	FormatNo.4
COURS	E NAME	Power Electronic	es			I		1	1	1	I I			
CO Deso	cription	Analyze operatio	n of SCR.											
LO Desc	cription	Demonstrate firin	g circuits	and commu	tation technique of SC	CR.								
		'			SCHEME O	F STUDY								
S. No.	Lear	ning Content	Teaching Me	g –Learning ethod	Description Proces	of T-L ss	Teach Hrs.	Pr /Tu	act. tHrs.		LRs Req	uire	d	Remarks
LO-06	Resistance- Circuit, UJ DIAC Firir commutat (using kits software/t	-Capacitance Firing T Firing Circuit, ng Circuit ion techniques s or simulation ool)	Lab demo hands on lab assigr Lab.	onstration, practice, nments, V-	 Teacher will explain Teacher with support will demonstrate the lab experiments. Student will conduct based on these experi- 	n the contents ort from lab staff e procedure of ct lab assignmen eriments	t		5	Train with instru with simul high	er instru measurin ments, c relevant ation so speed in	mer ng com ftwa tern	nts/kit puter are and et.	
					SCHEME OF A	SSESSMENT		I		1				
S. No.	Method	of Assessment	De	escription of	Assessment	Maximum Marks		Re	sourc	es Rec	luired			External / Internal
LO-06	Ir	nternal practical	Studen 1. Dem firing c 2. Dem	t will be ask onstrate and ircuit. onstrate cor	xed to l explain one or more nmutation technique	10]	Rubric	s,, Rat	ting sca	ale			Internal
	1				I									

DODI			S	CHEMEFORLEARNING	1 T	Bran	ch Code		C	Course Co	de	CO Code	LO Code	Α
KGPV	(Diplom	ia wing) Bhopal		OUTCOME		E	0	3	5	0		3	7	FormatNo.
COURS	SE NAME	Power Electronic	:S										1	1
CO Des	cription	Compare uncontrol	led and controlle	l rectifier.										
LO Des	cription	Analyze uncontrolle	ed rectifier using di	ode.										
				SCHEME OF STU	DY									
S. No.	Lear	rning Content	Teaching – Learning Method	Description of T-L Process	Teacl Hrs	n . /T	Pract 'ut H	rs.]	LRs R	equire	d		Remarks
LO-07	Circuit dia waveforms derivation Single Pha Uncontroll Resistive 1 Single Pha Uncontroll Mid-Point Resistive 1 Bridge Red	gram, working, s and formula with of- use Half Wave led Rectifier with oad, use Full Wave led Rectifier - Configuration with oad and Uncontrolled ctifier	Interactive classroom lecture PPT, Video, Demonstration, quiz, assignment	 Teacher will explain the contents and provide handouts to students. Teacher will conduct assignments/ quiz/tutorial to make students practice their knowledge. 	7				Text I Hando charts NPTE	Books outs, c , Vide L and	, PPT chalk l co lectu others	, board, ıre-		
				SCHEME OF ASSESS	MENI									
S. No.	Method	l of Assessment	D	escription of Assessment		М	aximu Marl	ım ks		Resou	rces Re	equired		External / Internal
LO-07	7 Extern	nal End sem Theory Exam.	 Student will b Derive form circuit and v Explain war with resistive Compare reconfiguration Compare here 	e asked to (and/or): nulae for half wave rectifier and exp working through waveforms veform and working of full wave re re load and state it formulae. nidpoint configuration and bridg on of full wave rectifier.	olain its ctifier e	;	10			Que	estion _I s	paper, F cale	Rating	External

DODU		TT 7• \		SC	HEMEFORLE	ARNING		Branch	Code	C	Course Cod	e	CO Code	LO Code	4
KGPV	(Diplom	a Wing)	Bhopal		OUTCOM	E		E C) 3	5	0		3	8	FormatNo.4
COURS	E NAME	Power El	lectronics								-	I			
CO Desc	cription	Compare	uncontrolled and co	ontrolled	rectifier										
LO Desc	ription	Analyze o	controlled rectifier	using SC	R.										
					SCHEM	E OF STUDY	7								
S. No.	Lear	ning Conte	nt		Teaching– Learning Method	Descripti Pro	ion o ocess	of T-L	Teach Hrs.	[/T	Pract. 'utHrs		LRs	Required	Remarks
LO-08	Circuit diag Single phas Resistive lo Single Phas (formula w Mid-Point Controlled Three Phas derivation) Half Wave Bridge Rec	gram, worki se Half Wav oad (formula se Full Wav tithout deriv Configuratio Bridge Rect e Controlled Controlled	ng, waveforms of - re Controlled Rectifie a with derivation), e Controlled Rectifie ation)- on with Resistive load tifier with resistive load d Rectifier (formula w Rectifier and Fully C esistive load only.	er with r d, oad vithout Controlled	Interactive classroom lecture, PPT, Video, Demonstration, quiz, assignments.	Teacher will contents and handouts to Teacher will assignments, quiz/tutorial students prac knowledge.	l exp l pro stud l con l to n ctice	blain the ovide ents. nduct nake e their	8			Text Hand boar Vide NPT	t Bool douts, rd, cha co lectu EL an	ks, PPT, , chalk arts, ure- d others.	
					SCHEME O	F ASSESSME	ENT								1
S. No.	Method Assessm	of nent	Description of	Assessme	ent	N	Aaxin Ma	num Irks		R	lesour	es Req	quired		External / Internal
LO-08	Externa Theor	ll End sem y Exam.	 Student will be asked 1. Explain each c through wavef 2. Compare unco 3. Derive formulae explain its circu . 	ed to(and/ configura forms ntrolled e for half it and wo	for): tion of controlled rec and controlled rectifing wave controlled rectifing rking through wavefor	ctifier iers ier and rms.		10		(s	Questio	n paper	:, Ratin	ıg	External

DODU				SCHEM	IEFORLEAR	NING		B	Branch Cod	e	C	ourse Co	de	CO Code	LO Code	
KGPV	(Diplom	a wing) Bhopal		(OUTCOME			E	0	3	5	0		3	9	FormatNo.4
COURS	SE NAME	Power Electronic	S				I		1	1		1	1	1	1	1
CO Desc	cription	Compare uncontro	olled and	controlled rect	ifier											
LO Desc	cription	Simulate uncontro	lled and	controlled recti	ifier											
		·			SCHEME (OF STUI	DY									
S. No.	Lear	ning Content	Teacl	ning –Learning Method	Description of Process	T-L	Teach Hrs.		Prac /TutH	t. rs.		LRs R	equire	d		Remarks
LO-09	Half Wave Rectifier, H Rectifier, F Uncontroll Wave Cont three phase rectifier(an software on	Uncontrolled Half Wave Controlled Full Wave ed Rectifier, Full trolled Rectifier, e controlled by simulation r kit)	Lab de hands lab ass Lab.	monstration, on practice, ignments, V-	 Teacher with su from lab staff v demonstrate the procedure of la experiments. Student will co lab assignment on these experi 	upport will e b b onduct based iments.	-		5		Lab m experi instru measu compu simula high s	anual ment ments ring i uter w ation peed	l, char al train /kit w instrur /ith rel softwa intern	ts, ner ith nents, levant ure and et.		
					SCHEME OF A	ASSESSI	MENT									
S. No.	Method	of Assessment	De	escription of Asse	essment	Maxin Ma	num arks			R	esourc	es Re	quired			External / Internal
LO-09	Extern	al end sem Practical Exam	Studer 1. Obs uncont measur	t will be asked erve the wavefor colled and contro e output voltages	to: rms for given lled rectifier and s.	1	5		ŀ	Rubri	cs, Rat	ing sc	ale			External

			ADDITIONAL IN	STRUCTIONS FOR THE H	HOD/ F	ACUL	TY (I	FAI	NY)					
DODU			SCHE	EMEFORLEARNING	r	Bran	ch Code		C	ourse Co	de	CO Code	LO Code	
RGPV	(Diploma	Wing) Bhopal		OUTCOME		E	0	3	5	0		3	10	FormatNo.4
COURS	E NAME	Power Electronics	S							1	1			
CO Desc	ription	Select a power conv	ersion device as per app	lication.										
LO Desci	ription	Compare different	types of Inverters											
				SCHEME OF STUD	Y									
S. No.	Learı	ning Content	Teaching– Learning Method	DescriptionofT-L Process	Teach Hrs.	[7]	Pract. YutHrs	5.		LRs]	Requi	red		Remarks
LO-10	Principle of Basic Class Circuit diag wave form of Single phas inverter, TI source inver mode. PWM Inver Modulation Series Inver Parallel Inv	inverters. ification of inverters. gram ,working and of- e voltage source hree Phase voltage rters with 180 degree tters –Single Pulse , tter erter	Interactive classroom lecture, PPT, Video, Demonstration, quiz, assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct assignments/ quiz/tutorial to make students practice their knowledge.	7				Text H Hando charts and oth	300ks puts, c , Vide hers.	, PPT halk o lect	', board, ure- NF	ΥTEL	
				SCHEME OF ASSESSM	1ENT									
S. No.	Method	of Assessment	Description of A	ssessment		Max N	imum Iarks			Re	esour	ces Rec	luired	External / Internal
LO-10	Internal P Assig	Progressive Test/ gnment/Quiz	Student will be aske 1.Explain principle waveform 2.Explain single pha- source inverter 3.Compare series an 4 Explain PWM in	ed to of inverter with diagram ar ase and three phase voltage nd parallel inverter	nd		10			Questi scale	ion pa	per, Ra	ting	Internal

				ADDITIONA	L INSTRUCTIONS FOR THE HO	D/ FA	CUL	ГY (II	' ANY	()					
DCDV (Diploma Wing) Phonal				SC	SCHEMEFORLEARNING			Branch Code				Course Code			
RGPV	RGPV (Diploma Wing) Bhopal				OUTCOME	E	6)	8	5	0		4	11	Format No. 4
COURS	SE NAME	Power Electro	onics												
CO Dese	cription	Select a power co	onversio	n device as per a	pplication.										
LO Deso	cription	Classify chopper	circuits			i									
					SCHEME OF STUDY										
S. No.	. No. Learning Content		Tea	ching–Learning Method	Description of T-L Process	Tea Hr	ch s.	Pra /Tut	LRs Required					Remarks	
LO-11	O-11 Principle of choppers Int Control Strategies of Iec choppers De Time Ratio Control, ass Current-limit Control Basic classifications of Chopper Circuits, Step-Up and Step-Down Choppers Applications Simple numerical		Interact lecture, Demon assignn	tive classroom PPT, Video, stration, quiz, nents.	Teacher will explain the contents and provide handouts to students. Teacher will conduct assignments/ quiz/tutorial to make students practice their knowledge.	6	5				Text Books, PPT, Handouts, chalk board, charts, Video lecture- NPTEL and others.)	
		·			SCHEME OF ASSESSME	NT	I							-	
S. No.	Methoo	d of Assessment		Desc	Description of Assessment			Maximum Marks			esourc	es Re	quired		External / Internal
LO-11 External end sem Theory Exam.			2 1 2 3 4 5	 Student will be as Outline the performance of the performance o	ent will be asked Dutline the principle of chopper with Functional circuit diagram Classify types of chopper Describe step up/step down chopper. Give applications of chopper Solve simple numerical on chopper- Duty			10		Question paper, Rating s				scale	External

RGPV (Dinloma Wing) R				SCHEMEFORLEARN				Branch Code			(Course Code CO Code		LO Code	Λ	
K	GPV (Di	ipioma wing) Bi	nopal	OUTCOME				E	0	3	5	0		4	12	FormatNo.4
COURS	E NAME	Power Electronic	S				1			1			1	1	1	
CO Desc	ription	Select a power conv	version dev	ice as per applic	ation.											
LO Desc	ription	Analyze output of	inverters	nverters and choppers.												
		·			SCHEME O	F STUD	ŊΥ									
S. No.	Lear	ning Content	Teachi N	ng –Learning ⁄Iethod	Description of T-L Process		Teacl Hrs.	h •	Pract. /TutHrs.		LRs Required					Remarks
LO-12	12 Draw input output wave form of inverter and choppers(kits or simulation software)		Lab dem hands or assignm	onstration, a practice, lab ents, V-Lab.	 Teacher with su from lab staff w demonstrate the procedure of lal experiments. Student will con lab assignment on these experiments 	apport vill b nduct based ments.	-		5		Lab manual, charts, experimental trainer instruments/kit with measuring instruments, computer with relevant simulation software and high speed internet.					
					SCHEME OF A	SSESSN	AENT	1								
S. No.	Method	of Assessment	De	Description of Assessment			num arks		Resources Required							External / Internal
LO-12	0-12 Internal practical		Studen 1. Dr in 2. Dr ch 3. St av (C	 Student will be asked to Draw input output wave form of inverter Draw input output wave form of chopper circuit. Survey on various inverters available in markets. (Online/Offline) 			10 Rubrics, Rating scale						Internal			
	ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)															

											0	10	
BCDV	(Dinlom	9 Wing) Rhonal	SCHEME FOR LEARNING			Branch Cod	le	Co	Course Code			Code	
KGI V (Dipioina Wing) bilopai			0	UTCOME	E	0	3	5	0		5	13	Formatino.
COURS	SE NAME	Power Electronics											
CO Dese	cription	Identify the applicatio	ns of power electronic dev	vices.									
LO Deso	cription	Summarize application	ns of power electronic dev	ices.									
		I		SCHEME OF STUDY									
S. No.	Learning Content		Teaching –Learning Method	Description of T-L Process	Teach Hrs.			Pract. Tut Hrs	LRs Require			ired	Remarks
LO-13	 D-13 Introduction with functional block diagram of:- Induction Heating Di-electric heating (Principle, Applications, merits &demerits over other systems) HVDC Transmission, types of HVDC link. SMPS, Concept of Switched Mod Power Supplies. UPS, Offline and Online UPS 		Interactive classroom lecture, PPT, Video, Demonstration, quiz, assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct assignments/ quiz/tutorial to make students practice their knowledge.	5	7			Tex Har boa Vide NPT	t Boo ndouts rd, cha eo lect TEL an	ks, PI , chal arts, ure- id othe	PT, k ers.	
SCHEM	E OF ASSE	CSSMENT	1										
S. No.	Method of Assessment		Description of Assessment			Maximum Mar			Resources Required				External / Internal
LO-13	External E Exam.	End sem Theory	Student will be asked to (at 1. Explain the given applidevices. (short notes)	nd/or) cation of power electronic	10 Question p					paper, F	Rating	scale	External

DODI	7 (D! 1			SCHEMEFORLEARNI OUTCOME			NG Branch			de	Course Code			CO Code	LO Code	Λ
KGPV	(Diplom	ia wing) Bhopai						E	0	3	5	0		5	14	FormatNo.4
COURS	SE NAME	Power Electronic	S							_						
CO Des	cription	Identify the applicat	ions of pow	ver electronic dev	vices.											
LO Dese	cription	Explore further app	lications of	power electroni	c devices as a case	study										
					SCHEME ()F STUI	DY									
S. No.	Lear	rning Content	Teachi N	ing –Learning Method	Description of T-L Process		Teacl Hrs.	h	Pract. /Tut Hrs.		LRs Required					Remarks
LO-14	-14 Suggested list for case study - Ultrasonic Applications, Induction heater, Welding, Electronic Ignition, High power audio amplifier system, Alarm actuator, Speed control of d.c. motor /stepper motor/servo motor, ECM (electronic control module) of car.		Interactiv lecture, P Demonstr assignmen	e classroom PT, Video, ration, quiz, nts.	room Teacher will explain the contents and provide quiz, handouts to students. Teacher will conduct assignments/ quiz/tutorial to make students practice their knowledge.						Text Books, PPT, Handouts, chalk boar charts, Video lecture- NPTEL and others.					
					SCHEME OF A	ASSESSI	MENT	1								
S. No.	Method	l of Assessment	De	escription of Asse	essment	Maxii Ma	mum arks		Resources Required							External / Internal
LO-14	Internal	nternal - Seminar seminar Student will be asked to (and/or 1. Prepare a presentation major application of present seminar			(and/or): tation on any n of power present in		10 Rub			Rubri	rics, Rating scale					Internal