RGPV	(DIPL) BHC	oma W Pal	'ING)	OBE CURRICULUM FOR THE COURSE					Sheet No. 1/5				
Branch		Electro	nics and	Telecommunicatio	on Engineering	S	emester		III				
Course	Code	30	4	Course Name	Progr	an	nming in (;					
Course	e Outco	ome 1	Develo printf,	op simple progran scanf, getch etc.	ns using library functio	ns	viz.	Tead Hrs	h Ma	rks			
Learnin	ig Outo	come 1	Identi progra pseude	fy a real life probl amming problem (o-codes etc. (Cogn	em and convert it into using flow-charts, algo itive)	a ritl	nms,	7	10				
C	ontent	S	Progra	m concept, Asseml	bler, Compiler & Interp	rete	er, Algorith	nms, I	Flowcha	rts			
Method	of Asse	essment	Extern	al									
Learnin	ig Outo	come 2	Write, compile, edit, execute and debug simple C710programs on any Integrated Development Environment710										
C	ontent	S	C prog keywo Expres	gram structure, pre- rds, identifiers, cor ssions, Statements,	processor directives, C nstants, variables, data t Use of header files	tok ype	ens, charac es, data typ	es coi	t, iversion	ι,			
Method	of Asse	essment	Interna	al									
Learnin	ig Outo	come 3	Write functio	simple input outp ons printf, scanf, g	ut programs using libr getch etc. (Psycho Moto	arg or)	y	7	10				
C	ontent	S	Input/o Forma	output functions- pr tted I/O using cont	rintf(), scanf(), getchar() rol string.), p	utchar(), g	ets(),	puts() et	tc.			
Method	of Asse	essment	t External										

RGPV (DIPLOMA WING) BHOPAL			/ING)	OBE CURI THE	RICULUM FOR COURSE	FORMA	.3	Sheet No. 2/5				
Branch		Electro	nics and	Telecommunicatio	on Engineering	Semester		ш				
Course	Code	30	4	Course Name	Progr	amming in (C					
Course	ent	Tead Hrs	ch Marks									
Learnin	ig Outo	come 1	Iden prog	tify different opera ram. (Cognitive)	ators available in C		7	10				
Co	ontent	S	Arithm Opera and de casting	netic Operators, Lo tors, Bitwise Opera ccrement (post and j g.	gical Operators, assignm tors, Special Operators: pre) operators, preceden	nent operator exit(), sizeof ce & associa	, Rela (), inc tivity,	tional crement Type				
Method	of Asse	essment	Exte	rnal								
Learnin	g Outo	come 2	Select opera	and utilize the rig tors in a particular	ht operator amongst al r problem scenario. (Co	ll the ognitive)	7	10				
C	ontent	S	Examp	ble practice probler	ns using different types	ofoperators	•	· ·				
Method	of Asse	essment	Intern	al								
Learnin	g Outo	come 3	Write using	and execute simpl different operator	le math/logic based pro s. (Psycho Motor)	ograms	7	10				
C	ontent	S	Progra of ope	m implementation rators.	of example practice pr	oblems using	diffe	rent types				
Method	of Asse	essment	External									

RGPV (DIPLOMA WING BHOPAL				OBE CURI THE	RICULUM FOR COURSE		FORMAT	-3	Sheet No. 3/5				
Branch		Electron	nics and	Telecommunication	on Engineering	5	emester		III				
Course	Code	30	4	Course Name	Prog	rar	nming in (;					
Course	e Outc	ome 3	Utilize to con	e if-else, switch-cas trol the flow of pro	se, goto, while, do-whil ogram.	le, f	for loops	Teac Hrs	h Marks				
Learnin	ng Outo	come 1	Iden in C	tify different cont D) available in C _H	rol statements (as men program. (Cognitive)	ntio	ned	7	10				
C	ontent	S	Branc case st Loop s and co	hing statements: <i>i</i> atement. statements: <i>for</i> sta <i>ntinue</i> statement, n	f statement, <i>if- else</i> , nes tement, <i>while</i> statement tested loop and infinite	stec t, <i>L</i> loc	l <i>if, goto</i> sta Do-while sta p.	temer temer	nt, <i>switch-</i> nt, <i>break</i>				
Method	of Asse	essment	Extern	External									
Learnin	ng Outo	come 2	Select the op	and utilize the rig tions in a particul	ht control statement a ar problem scenario. (ima (Co	ongst all gnitive)	7	10				
C	ontent	S	Examp	le practice probler	ns using different type	s of	control sta	teme	nts.				
Method	of Asse	essment	Interna	al									
Learnin	ng Outo	come 3	Write progra Motor	Vrite and execute simple math/logic/display based 7 10 rograms using different flow control statements. (Psycho Aotor)									
C	ontent	S	Progra	m implementation trol statements.	of example practice p	rob	lems using	differ	ent types				
Method	of Asse	essment	Interna	al									

RGPV	(DIPL) BHC	oma W IPal	'ING)	OBE CURI THE	FORMAT	.3	Sheet No. 4/5						
Branch		Electro	nics and	Telecommunicatio	on Engineering	S	emester		I	II			
Course	Code	30	4	Course Name	Prog	rar	nming in (;					
Course	e Outco	ome 4	Develo and er	op simple progran nums.	ns using arrays, strings	5, S	tructures	Teacl Hrs		Marks			
Learnin	ng Outo	come 1	Iden in C	tify different deriv O) available in C p	ved data types (as men program. (Cognitive)	tio	ned	7		10			
C	ontent	S	declara arrays String (conca Struct operat	Arrays: Concept of one dimensional and Multi-dimensional array, array declaration, Array initialization, operations on one and two-dimensional arrays. Strings: String Manipulations, gets(), puts(), string operations, string functions (concatenation, comparison, length of a string etc.) Structures: Definition, Declaration, initializing structure, membership operator accessing structure elements, concept of enum									
Method	of Asse	essment	Interna	ıl									
Learnin	ng Outo	come 2	Select the op	and utilize the rig tions in a particul	ht derived data type a ar problem scenario. (mo Co	ongst all gnitive)	7		10			
C	ontent	S	Examp	le practice probler	ns using different types	s of	derived da	ita.					
Method	of Asse	essment	Extern	al									
Learnin	ng Outo	come 3	Write based (Psych	and execute simp programs using d 10 Motor)	le mathematics/logic/d ifferent derived data t	isp ype	lay es.	7		10			
C	ontent	s	Progra of der	m implementation ved data.	of example practice pr	rob	lems using	diffe	ren	t types			
Method of Assessment External													

RGPV	(DIPL) BHC	oma W IPal	'ING)	OBE CURI THE	RICULUM FOR COURSE	FORMA	-3	Sheet No. 5/5						
Branch		Electro	nics and	Telecommunicati	on Engineering	Semester		III						
Course	Code	30	4	Course Name	Progr	amming in (5							
Course	e Outc	ome 5	Develo	op simple progran	ns using pointers and fu	nctions.	Teac Hrs	h Marks						
Learnin	ig Outo	come 1	Ident progr	Identify the need for functions and pointers in C710programming.(Cognitive)7										
C	ontent	S	Basics Functi by value recursi Storag Pointe express function	on prototype, Loca ue, call by referenc ion, command line ge classes: static au ers: Definition, Typ sion, pointer arithm on.	in and user defined fund l and global variables, so e. Arguments and Paran argument. ito, extern, and register. bes, Declaration, & and ² netic, pointer to pointer,	tions. Function cope and life neter passing * operator, po array of poin	on de of var mecha pinter ter, po	claration, iable, call anisms, binter to						
Method	of Asse	essment	Extern	al										
Learnin	ig Outo	come 2	Write (Cogn	and execute prog itive)	rams using pointers and	l functions.	7	10						
C	ontent	S	Progra functio	Program implementation of example practice problems of pointers and functions.										
Method	of Asse	essment	Extern	al										
Learnin	ig Outo	come 3	Under by-ref memo	stand and utilize (erence, recursion, ry allocation in C.	the concept of call-by-v storage classes and dy (Psycho Motor)	alue, call- namic	7	10						
C	ontent	S	Progra	m implementation	of example practice pro	oblems of ab	ove (L	03).						
Method of Assessment Internal														

SuggestedListofExperiments:

S.N.	Experiment	СО
1.	StudyofanyC editor-filemenu, editmenu, run menu, compilemenuetc.	All
2.	Programs	CO305.1
	usingInput/Outputstatements:printf(),scanf(),gets(),puts(),getch(),getcha	
3.	Programs on formattedI/Ousingcontrolstrings.	CO305.1
4.	Programs using different data types.	CO305.1
5.	Programs usingArithmeticOperators.	CO305.2
6.	Programs usingLogicalOperators.	CO305.2
7.	Programs usingRelational Operators.	CO305.2
8.	Programs usingAssignmentOperators.	CO305.2
9.	Programs usingBitwiseOperators.	CO305.2
10.	Programs usingexit()operator.	CO305.2
11.	Programs usingsizeof()operator.	CO305.2
12.	Programs using if-else Statements.	CO305.3
13.	Programs usingnestedif-elseStatements.	CO305.3
14.	Programs usinggotoStatement.	CO305.3
15.	Programs usingswitch-caseStatement.	CO305.3
16.	Programs usingwhileloopStatement.	CO305.3
17.	Programs usingdo-whileloopStatement.	CO305.3
18.	Programs usingforloop Statement.	CO305.3
19.	Programs usingbreakStatement.	CO305.3
20.	Programs using continue Statement.	CO305.3
21.	Programs usingSingledimensionalarrays.	CO305.4
22.	Programs using Two-dimensionalarray.	CO305.4
23.	Programs usingStringFunctions.	CO305.4
24.	Programs using command line argument.	CO305.4
25.	Programs usingStructures.	CO305.4
26.	Programs usingEnums.	CO305.4
27.	Programs using simple Functions	CO305.5
28.	Programs usingcallbyValue& Callbyreference.	CO305.5
29.	Programs usingrecursion.	CO305.5
30.	Programs usingStatic,Auto,&ExternStorageclasses.	CO305.5
31.	Programs usingPointer.	CO305.5
32.	Programs usingPointerto aFunction.	CO305.5
33.	Programs usingParameterPassingmechanisms(callby	CO305.5
	value/callbyreference)	

Twenty experiments in a semester as per the discretion of the subject teacher.

ReferenceBooks/WebPortals:

S.N.	Title	Author
1	Programmingin ANSIC	E.
		BalaguruswamiTa
2	Let us C	Y.Kanetker
		BPBPublications
3	Schaum'sOutline of Theory and Problemsof	Gottfried,ByronS.
	Programming with C	Schaum'sseries
4	TheC ProgrammingLanguage	BrianW.Kernighan,DennisRitchiePe
		arsonEducation
5	spoken-tutorial.org	
6.	nptel.ac.in	
7.	<u>swayam.gov.in</u>	

	RGPV (Diploma Wing) Bhopal			SCHE	EME FOR LEARNING	Branc	h Code	Co	ourse Code	CO Code	LO Code	/
KGPV		oma vving) e	snopai		OUTCOME	Ε	0 3	3	0	4 1	1	Format No. 4
COURS	E NAME	Programming in	n C			·						
CO Des	cription	Develop simple pro	ograms usin	g library fun	ctions viz. printf, scanf, getch etc.							
LO Dese	cription	Identify a real life	problem and	d convert it i	nto a programming problem using flo	w-charts,	algorith	ims, pse	eudo-cod	es etc.		
		·			SCHEME OF STUDY							
S. No.	Learı	ning Content	Teacl Learning	ning – I Method	Description of T-L Process	T	each Hrs.	Pract Hi	. /Tut rs.	LRs Rec	luired	Remarks
1.	Program Assemble Interpret Flowchar	concept, er, Compiler & er, Algorithms, ts	Interactiv classroom PPT, Prog demonstr quiz, assiq tutorial	e n lecture, ram ration, gnments,	Teacher will explain the contents and provide handouts to student Teacher will conduct assignment quiz/ tutorial	s 4 s. s/		3		Text Boo Handouts board, Compute software	ks, PPT, s, chalk rs, IDE	
	1		1		SCHEME OF ASSESSMENT	•						
S. No.	Method	of Assessment		Des	scription of Assessment		Max m N	kimu 1arks	Resou	rces Req	uired	External / Internal
1.	End Se	emester Theory Exam	Student v 1. Read a 2. Interpr	 Student will be asked to (and/or) Read and develop flowcharts, algorithms, pseudo codes. Interpret real life problem and document it into these form 			10			estion pap ating scale	er, 9	External
	1		AD	DITIONAL	INSTRUCTIONS FOR THE HOD/	FACUL	ry (if a	NY)	1		I	

	GPV (Diploma Wing) Bhopal			SCHE	EME FOR LEARNI	NG	Branch Code		Course Co	de	CO Code	LO Code	
KGPV		oma wing) e	snopai		OUTCOME		E 0	3	3 0	4	1	2	Format No. 4
COURS	E NAME	Programming in	n C			I	I I	I		-			
CO Des	cription	Develop simple pro	ograms usin	g library fun	ctions viz. printf, scanf, get	ch etc.							
LO Des	cription	Write, compile, ed	lit, execute a	ind debug si	mple C programs on any In	tegrated D	evelopment En	vironn	nent (IDE)).			
					SCHEME OF S	TUDY							
S. No.	Leari	ning Content	Teach Learning	ning – Method	Description of T-L	. Process	Teach Hrs.	Pra	act. /Tu Hrs.	^t Ll	Rs Rec	luired	Remarks
2	2 C program structure, pre- processor directives, C classroo tokens, character set, PPT, keywords, identifiers, Program constants, variables, data demons types, data types conversion, Expressions, Statements, Use of header files			e lecture, ation, quiz, ts, tutorial	e, Teacher will explain the contents and provide handouts to students. Teacher will conduct quiz/assignments/ tutorial juiz, prial				3	Te: Ha bo Co sof	kt Book ndouts ard, mputer tware	s, PPT, , chalk s, IDE	
					SCHEME OF ASSE	SSMENT							
S. No.	Method	l of Assessment	De	escription	of Assessment	Maxin	num Marks		Resour	ces R	equire	ed	External / Internal
2	Mid Sem	ester Theory Exam	Student w 1. Write s	ill be asked simple introd	to (and/or): ductory programs in C.		10	10 Question pa				scale	Internal
	1		AD	DITIONAL	INSTRUCTIONS FOR T	HE HOD/	FACULTY (IF	ANY))				

	RGPV (Diploma Wing) Bhopal			SC	HEME FOR LEARNING	В	ranch Code		Course Co	de	CO LO Code Code		/
RGPV		oma vving) e	snopai		OUTCOME	Ε	0	3	3 0	4	1	3	Format No. 4
COURS	E NAME	Programming in	n C			1	II		I	1		1	
CO Des	cription	Develop simple pro	ograms usin	g library	functions viz. printf, scanf, getch etc.								
LO Dese	cription	Write simple input	output pro	grams us	ing library functions printf, scanf, getch e	etc.							
					SCHEME OF STUDY								
S. No.	Learr	ning Content	Teachi Learn Meth	ing — ling lod	Description of T-L Process		Teach Hrs.	Pr	ract. /Tut Hrs.	E L	Rs Req	uired	Remarks
3. Input/output functions- printf(), scanf(), getchar(), putchar(), gets(), puts() etc. Formatted I/O using control string. hands o practice assignm			Interactive classroom lecture, PF demonstra hands on practice, la assignmer	e PT, Lab ation, ab ats.	 Teacher will explain the content in class/lab. Teacher with support from lab sta will demonstrate the procedure or computer lab experiments. Student will conduct computer lab assignment based on these experiments. 	n Iff f	4		3	Tex Ha box Ma Co sof	xt Books ndouts, ard, Pra anual, mputers tware	s, PPT, chalk ctical s, IDE	
					SCHEME OF ASSESSMENT	Γ							
S. No.	Method	l of Assessment		De	escription of Assessment		Maxim	num	Marks	R F	esoura Require	es ed	External / Internal
3.	3. End Semester Practical Exam Exam Exam Exam Exam Exam			ident will be asked to (and/or): Write and execute programs based on formatted library I/O actions. (printf, scanf) Write and execute programs based on unformatted library functions. (getch, gets, putch, puts etc.)			10			Rut	orics, Ra scale	ating	External
			AD	DITION	IAL INSTRUCTIONS FOR THE HOD/	FAC	ULTY (IF	ANY)				

	GPV (Diploma Wing) Bhopal)honol	SCHEME FOR LEARNING		Branch Code	e	Course Code		CO Code	LO Code	A
KGPV		oma vving) e	snopai	C	UTCOME	E 0	3	3 0	4	2	4	Format No. 4
COURS	E NAME	Programming in	n C		1				.1	1	I I	
CO Des	cription	Solve simple logica	al problems	using different op	erators in programs.							
LO Des	cription	Identify different of	operators av	ailable in C progra	ım.							
		1			SCHEME OF STUDY							
S. No.	Learr	ning Content	Teachi N	ng –Learning /lethod	Description of T-L Process	Teach Hrs.	Pra	nct. /Tut Hrs.	LI	Rs Req	uired	Remarks
4.	Arithmetic Logical Op assignmen Relational Bitwise Op Operators increment (post and precedence Type casti	c Operators, berators, nt operator, l Operators, perators, Special s: exit(), sizeof(), t and decrement pre) operators, ce & associativity, ing.	Interactive lecture, PF demonstra practice, la	e classroom PT, Lab ation, hands on ab assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct quiz/assignments/ tutorial	4		3	Text Hand boar IDE s	Books, douts, c d, Com oftware	PPT, halk puters, e	
					SCHEME OF ASSESSMENT							
S. No.	Method	l of Assessment		Descriptio	n of Assessment	Max	imun	n Marks	R	esouro equire	es ed	External / Internal
4.	End Se	emester Theory Exam	Student 1. Ex 2. Us	will be asked to plain different ty se these operato	o(and/or): ypes of operators in C. rs to solve simple problems.		10			stion p ating sc	aper, ale	External
			AD	DITIONAL INST	RUCTIONS FOR THE HOD/	FACULTY (I	if an	Y)				

	RGPV (Diploma Wing) Bhopal			SCHE	EME FOR LEARNING	В	ranch Code		Course Co	de	CO Code	LO Code	
KGPV		oma wing) B	nopai		OUTCOME	Ε	0	3	3 0	4	2	5	Format No. 4
COURS	E NAME	Digital Electroni	ics				I I		I				
CO Des	cription	Solve simple logical	l problems	using differe	ent operators in programs.								
LO Dese	cription	Select and utilize th	ne right ope	erator among	gst all the operators in a particular pro	blem	scenario.						
					SCHEME OF STUDY								
S. No.	Learr	ning Content	Teacl Learning	hing – J Method	Description of T-L Process		Teach Hrs.	P	ract. /Tul Hrs.	: LI	Rs Req	uired	Remarks
5 Example practice problems using different types of operators. PF de qu as tu			Interactiv classroom PPT, demonstr quiz, assignme tutorial	re n lecture, ration, nts,	 Teacher will explain the contenclass/lab. Teacher with support from labs will demonstrate the procedure computer lab experiments. Student will conduct computer assignment based on these experiments. 	t in staff e of lab	4		3	Tex Ha bo Co sof	xt Books ndouts, ard, mputers tware	s, PPT, chalk s, IDE	
					SCHEME OF ASSESSMENT								
S. No.	Method	l of Assessment		Descrip	tion of Assessment		Maximu	ım N	Marks	R F	esouro Require	es ed	External / Internal
5	Practical t	test in laboratory	Student v 1. Id 2. Us	dent will be asked to (and/or)1. Identify the right operator to use.2. Use these operators to solve simple problems.			10			Rut	orics, Ra scale	ating	Internal
	1	'	AD	DITIONAL	INSTRUCTIONS FOR THE HOD/	FAC	ULTY (IF	AN	Y)				

	GPV (Diploma Wing) Bhopa		honal	SCHE	EME FOR LEARNI	NG	Bra	anch Code	C	ourse Cod	le	CO Code	LO Code	
KGPV		ma wing) в	nopai		OUTCOME		Ε	0 3	3	0	4	2	6	Format No. 4
COURS	E NAME	Digital Electroni	CS			,	· ·							
CO Des	cription	Solve simple logical	l problems	using differe	ent operators in programs.									
LO Dese	cription	Write and execute	simple mat	h/logic base	d programs using different	operators.	•							
		·			SCHEME OF S	TUDY								
S. No.	Learr	ning Content	Teacl Learning	ning – I Method	Description of T-L	Process		Teach Hrs.	Pract H	. /Tut rs.	LF	Rs Req	uired	Remarks
6	6 Program implementation of example practice problems using different types of operators.			e n lecture, ation, gnments.	Teacher will explain the and provide handouts to Teacher will conduct qu assignments/ tutorial	contents o student iiz/	S.	4		3	Tex Har boa Cor sof	t Books ndouts, ard, nputers tware	s, PPT, chalk s, IDE	
	1				SCHEME OF ASSE	SSMENT	•							
S. No.	Method	of Assessment	D	escription	of Assessment	Maxir	num N	Marks	Re	esourc	es Re	equire	d	External / Internal
6	End Se	emester Theory Exam	Student v 1. Id 2. Us pr	vill be asked entify the r se these op oblems.	d to ight operator to use. erators to solve simple		10		Ques	tion pa	per, I	Rating	scale	External
			AD	DITIONAL	INSTRUCTIONS FOR TH	HE HOD/	FACU	ILTY (IF A	NY)					

	/ /Dinla	mo Ming) [Phonal	SCHEME	FOR LEARNING	Branch	Code		Cou	rse Code	e	CO Code	LO Code	
KGPV		oma vving) E	snopai	0	UTCOME	E C)	3	3	0	4	3	7	Format No. 4
COURS	E NAME	Digital Electron	ics		· · · ·		I	!		I			I	
CO Des	cription	Utilize if-else, swit	ch-case, got	o, while, do-while,	for loops to control the flow of	program.								
LO Des	cription	Identify different of	control state	ments available in	C program.									
					SCHEME OF STUDY									
S. No.	Learr	ning Content	Teachi N	ng -Learning /lethod	Description of T-L Proce	ss Te	each Irs.	P	ract. / Hrs	/Tut	LF	ls Req	uired	Remarks
7	7 Branching statements : <i>if</i> statement, <i>if- else</i> , nested <i>if</i> , <i>goto</i> statement, <i>switch-case</i> statement. Loop statements : <i>for</i> statement, <i>while</i> statement, <i>Do-while</i> statement, <i>break</i> and <i>continue</i> statement, nested loop and infinite loop.			e classroom PT, Lab ation, hands on ab assignments.	 Teacher will explain the content in class/lab. Teacher with support from lab staff will demonstrate procedure of lab experiments. Student will conduct lab assignment based on thes experiments. 	4 n the e		3			Tex Har boa Cor soft	t Books ndouts, rd, nputers ware	s, PPT, chalk s, IDE	
					SCHEME OF ASSESSMENT									
S. No.	Method	of Assessment		Descriptio	n of Assessment	N	laxir	num	n Marl	ĸs	Re R	e <mark>sour</mark> a equire	es ed	External / Internal
7	7 End Semester Theory Exam		Student w 1. Id 2. Us	vill be asked to(a entify different c se these stateme	nd/or): ontrol statements in C. nts to solve simple problems.			10)		Que: Ra	stion P ting sc	aper, ale	External
			AD	DITIONAL INST	RUCTIONS FOR THE HOD/	FACULT	Y (IF	AN	Y)					

	GPV (Diploma Wing) Bhopa		bonol	SC	HEME FOR LEARNI	NG	Brar	nch Code	•	Co	ourse Co	de	CO Code	LO Code	
KGPV		oma vving) E	snopai		OUTCOME		Ε	0	3	3	0	4	3	8	Format No. 4
COURS	E NAME	Digital Electron	ics			I	I	I					1	· ·	
CO Des	cription	Utilize if-else, swite	ch-case, goto	, while,	do-while, for loops to control	the flow of	progra	m.							
LO Des	cription	Select and utilize t	he right cont	rol state	ement amongst all the options	in a particu	ular pro	blems	scena	rio.					
		·			SCHEME OF S	TUDY									
S. No.	Learr	ning Content	Teachir Learni Metho	ng – Ing od	Description of T-L F	Process		Teacl Hrs.	h I	Pract. Hr	. /Tut rs.	Lf	Rs Req	uired	Remarks
8	Example p using dif control s	Interactive classroom lecture, PF demonstra hands on practice, la assignmen	e PT, Lab ation, ab ats.	 Teacher will explain the or class/lab. Teacher with support frow will demonstrate the process experiments. Student will conduct lab based on these experiments. 	content in om lab stat ocedure of assignmen ents.	ff Tab nt	4		3	3	Tex Hai boa Cor sof	tt Book: ndouts, ard, mputer tware	s, PPT, chalk s, IDE		
					SCHEME OF ASSE	SSMENT									·
S. No.	Method	of Assessment	De	escripti	on of Assessment	Maxin	num N	/larks		Re	sour	es R	equire	d	External / Internal
8	8 Practical test in laboratory		Student wil 1. Identify 2. Use the problem	II be ask the righ se state ns.	ed to(and/or): ht control statement to use. ments to solve simple		10			Rı	ubrics	, Ratir	ng scal	e	Internal
			ADI	DITION	AL INSTRUCTIONS FOR TI	HE HOD/	FACU	LTY (I	F AN	IY)					

	GPV (Diploma Wing) Bhopa			SCHI	EME FOR LEARNI	NG	Ві	ranch Cod	е	C	ourse Co	de	CO Code	LO Code	Л
KGPV		oma vving) E	snopai		OUTCOME		Ε	0	3	3	0	4	3	9	Format No. 4
COURS	E NAME	Digital Electron	ics				1			_		1			
CO Des	cription	Utilize if-else, swit	ch-case, got	o, while, do	while, for loops to control	the flow of	progr	am.							
LO Des	cription	Write and execute	simple mat	h/logic/disp	lay based programs using d	ifferent flo	w con	trol sta	iteme	ents.					
					SCHEME OF S	TUDY									
S. No.	Learr	ning Content	Teacl Learning	hing – J Method	Description of T-L	Process		Teac Hrs	h.	Pract H	:. /Tut rs.	L	Rs Rec	luired	Remarks
9	Program i example p using diffe control sta	mplementation of practice problems erent types of atements.	Interactiv classroom PPT, demonstr quiz, assignme tutorial	e n lecture, ration, nts,	Teacher will explain the and provide handouts t Teacher will conduct quiz/assignments/ tuto	contents o students rial	S.	4			3	Te) Ha boa Coi sof	t Book ndouts, ard, mputer tware	s, PPT, , chalk s, IDE	
			1		SCHEME OF ASSE	SSMENT						I			
S. No.	Method	of Assessment	D	escription	of Assessment	Maxin	num	Marks	5	Re	esour	ces R	equire	ed	External / Internal
9	Pra Ia	Method of Assessment Practical test in laboratory		ill be asked ⁻ y the right c ese stateme problems.	to(and/or): ontrol statement to use. nts to solve		10			R	ubrics	/Ratii	ng scal	e	Internal
			AD	DITIONAL	INSTRUCTIONS FOR T	HE HOD/	FACI	JLTY (if Ai	NY)					

RG	RGPV (Diploma Wing)		SCHEME FC	OR LEARNING		Bra	inch Code		Cou	urse Co	de	CO Code	LO Code	/
	Bho	opal	OUT	COME		Ε	0	3	3	0	4	4	10	Format No. 4
COU	RSE NAME	Digital Electronic	CS						I			1		
CO D	escription	Develop simple pro	grams using arrays, strings, s	tructures and enums.										
LO De	escription	Identify different de	erived data types (as mentior	ned in CO) available in (C progran	n.								
				SCHEME OF ST	UDY									
S. No.	Learr	ning Content	Teaching –Learning Method	Description of 1	T-L Proc	ess	Теас	ch Hr	rs.	Pra /Tut	ct. Hrs.	Re	LRs quired	Remarks
10	Arrays: Conce dimensional a array, array d initialization, and two-dime Strings: String gets(), puts(), string function comparison, Structures: D initializing str operator, acce elements, con	ept of one and Multi-dimensional leclaration, Array operations on one ensional arrays. g Manipulations, , string operations, ons (concatenation, length of a string etc.) refinition, Declaration, cucture, membership cessing structure ncept of enum.	Interactive classroom lecture, PPT, Lab demonstration, hands on practice, lab assignments.	 Teacher will explain in class/lab. Teacher with support staff will demonstry procedure of lab existence Student will condurassignment based experiments. 	n the cor ort from rate the xperimer ict lab on these	ntent lab nts.		4		3	1	Text I PPT, I chalk Comp IDE so	3ooks, Handout board, buters, oftware	S,
	1			SCHEME OF ASSES	SMENT		1							
S. No.	Method	d of Assessment	Description of As	ssessment	Ma	aximur	n Mark	(S		Res	ources	s Requi	red	External / Internal
10	Mid Seme	ester Theory Exam	Student will be asked to(ar 1. Identify different derived 2. Use them to solve simple	nd/or): d data types in C. eproblems.		1()		C	2uest	tion pa sca	aper, R ale	ating	Internal
			ADDITIONAL INST	RUCTIONS FOR TH	E HOD/	FACU	LTY (I	F AN	Y)					

	PV (Diploma Wing) Bhopal	Dhanal	SC	HEME FOR LEARNING	Bra	nch Cod	e	Co	ourse Coo	le	CO Code	LO Code	Л	
KGPV		oma vving)	впораі		OUTCOME	Ε	0	3	3	0	4	4	11	Format No. 4
COURS	E NAME	Digital Electro	onics			· ·	1					1	· ·	
CO Des	cription	Develop simple	programs usin	g arrays,	strings, structures and enums.									
LO Des	cription	Select and utiliz	e the right deri	ved data	type amongst all the options in a particu	ular prol	blems	scena	rio.					
					SCHEME OF STUDY									
S. No.	Learni	ng Content	Teachin Learning M	g – ethod	Description of T-L Process		Tea ch Hrs.	Pra	act. / Hrs.	Tut	LR	s Req	uired	Remarks
11	Example problems types of d	Example practice II problems using different c types of derived data. p d d		cture, on, nents.	Teacher will explain the contents an provide handouts to students. Teach will conduct quiz/ assignments/ tuto	nd her orial	4		3		Text Hand boar IDE s	Books, douts, c d, Com oftwar	PPT, halk puters, e	
					SCHEME OF ASSESSMENT	•								
S. No.	Method	l of Assessmen	ıt	Desc	ription of Assessment	N	laxin	num	Mark	S	R	esour equir	es ed	External / Internal
11	End Seme Exam	Image: Nethod of AssessmentEnd Semester PracticalExam2.		ill be ask y the righ em to so	ed to(and/or): nt derived data type to use. ve simple problems.			10			Rub	orics/Ra scale	ating	External
			AD	DITION	AL INSTRUCTIONS FOR THE HOD/	FACU	LTY (if an	IY)					

	GPV (Diploma Wing) Bhopa			SCHI	EME FOR LEARNI	NG	B	Branch Coo	le	C	ourse Co	de	CO Code	LO Code	л
KGPV		oma vving) E	snopai		OUTCOME		E	0	3	3	0	4	4	12	Format No. 4
COURS	E NAME	Digital Electron	ics			I		-	1			1			
CO Des	cription	Develop simple pro	ograms usin	g arrays, str	ings, structures and enums.										
LO Des	cription	Write and execute	simple mat	hematics/lo	gic/display based programs	using diffe	erent	derived	l data	a types.					
					SCHEME OF S	TUDY									
S. No.	Leari	ning Content	Teach Learning	ning – I Method	Description of T-L	Process		Tead Hrs	:h	Pract Hi	. /Tut rs.	L	Rs Rec	uired	Remarks
12	Program implementation of example practice problems using different types of derived data.		Interactiv classroom PPT, demonstr quiz, assiç	e n lecture, ation, gnments.	Teacher will explain the and provide handouts to Teacher will conduct qu assignments/ tutorial	contents o student iiz/	S.	4			3	Tex Ha box Co sof	kt Book ndouts ard, mputer Tware	s, PPT, , chalk s, IDE	
	1		1		SCHEME OF ASSE	SSMENT						1			
S. No.	Method	l of Assessment	De	escription	of Assessment	Maxir	num	Mark	S	Re	esour	ces R	equire	ed	External / Internal
12	End Se	End Semester Theory Exam		ill be asked ⁻ y the right d em to solve	to(and/or): lerived data type to use. simple problems.		10			Quest	tion pa	aper,	Rating	scale	External
			AD	DITIONAL	INSTRUCTIONS FOR T	HE HOD/	FAC	ULTY ((IF A	NY)					

	GPV (Diploma Wing) Bhopal	SCHEME FOR LEA	ARNING	Branch Code	Course Coo	de CO Cod	LO e Code		
KGPV		ma wing) Bhopai	OUTCOM	E	E O 3	3 3 0	4 5	13	Format No. 4
COURS	E NAME	Digital Electronics		·	I				
CO Des	cription	Develop simple programs using	pointers and functions.						
LO Des	cription	Identify the need for functions	and pointers in C programming						
			SCHEME	OF STUDY					
S. No.		Learning Content	Teaching – Learning Method	Description of T-L Process	of Teach Hrs.	Pract. /Tut Hrs.	LRs R	equired	Remarks
13	 Basics of function: Built in and user defifunctions. Function declaration, Function prototype, Local and global variables, sc life of variable, call by value, call by refe Arguments and Parameter passing mech recursion, command line argument. Storage classes: static auto, extern, and Pointers: Definition, Types, Declaration, operator, pointer expression, pointer ar pointer to pointer, array of pointer, pointer, pointer. 		ed Interactive classroom lecture, pe and PPT, demonstration, quiz, assignments. egister. and * metic, er to	Teacher will explain the contents and provide handout to students. Teacher will conduct quiz/ assignments/ tutorial	s		Text Boo Handou board, Comput softward	oks, PPT, ts, chalk ers, IDE e	
			SCHEME OF	ASSESSMENT					·
S. No.		Method of Assessment	Description o	f Assessment	Maxim	um Marks	Resou Requ	irces ired	External / Internal
13		End Semester Theory Exam	Student will be asked 1. Identify the need for classes and pointers. 2. Use them to solve s	to(and/or): or functions, storag impleproblems.	e	10	Questior Rating	i paper, scale	External
		AD	DITIONAL INSTRUCTIONS F	FOR THE HOD/ F	ACULTY (IF	ANY)			

	CGPV (Diploma Wing) B	Phonal	SCHE	ME FOR LEARNI	NG	Branc	h Code		Cour	se Cod	e	CO Code	LO Code	1	
KGPV		oma vving) c	snopai		OUTCOME		E	0	3	3	0	4	5	14	Format No. 4
COURS	E NAME	Digital Electron	ics				I	I	· ·					I	
CO Des	cription	Develop simple pro	ograms usin	g pointers a	nd functions.										
LO Dese	cription	Write and execute	programs u	ising pointer	s and functions.										
					SCHEME OF S	TUDY									
S. No.	Learı	ning Content	Teacl Learning	hing – J Method	Description of T-L	Process	T	each Hrs.	Pra	Act. / Hrs.	'Tut	LF	Rs Req	uired	Remarks
14	Program implementation of example practice problems of pointers and functions.		Interactiv classroon PPT, demonstr quiz, assig	re n lecture, ration, gnments.	Teacher will explain the and provide handouts t Teacher will conduct qu assignments/ tutorial	contents o students iiz/	5.	4		3		Tex Har boa Cor soft	t Books ndouts, nrd, nputer tware	s, PPT, chalk s, IDE	
	1		1		SCHEME OF ASSE	SSMENT	I		1						I
S. No.	Method	l of Assessment	D	escription	of Assessment	Maxin	num Ma	arks		Res	ourc	es Re	equire	d	External / Internal
14	End Seme	ester Theory Exam	Student w Solve simp pointers.	ill be asked t ble problems	o(and/or): using functions and		10		Qu	iestio	on pa	per, l	Rating	scale	External
			AC	DITIONAL	INSTRUCTIONS FOR T	HE HOD/	FACUL	T Y (IF	ANY))					

	GPV (Diploma Wing) Bhopal	SCHE	EME FOR LEARNIN	NG	Bra	anch Cod	le	C	ourse Co	de	CO Code	LO Code			
KGPV		ima wing) B	snopai		OUTCOME		Ε	0	3	3	0	4	5	15	Format No. 4
COURS	E NAME	Digital Electron	ics												·
CO Des	cription	Compare various d	ligital logic f	amily.											
LO Des	cription	Make use of PAL &	PLA for imp	lementation	n of Boolean expression and	design sir	mple lo	ogic cir	cuit.						
					SCHEME OF ST	UDY									
S. No.	Learr	ning Content	Teach Learning	ning – Method	Description of T-L I	Process		Teac Hrs	:h	Pract H	. /Tul rs.	L	Rs Rec	luired	Remarks
15	Understand and utilize the concept of call-by-value, call-by-reference, recursion, storage classes and dynamic memory allocation in C.		Interactiv classroom PPT, Video demonstr quiz, assig	e n lecture, o, ation, jnments.	Teacher will explain the c and provide handouts to Teacher will conduct quiz assignments/ tutorial	contents students z/	S.	4			3	Tex Ha box Co sof	kt Book ndouts ard, mputer tware	s, PPT, , chalk s, IDE	
					SCHEME OF ASSES	SMENT									
S. No.	Method	of Assessment	De	escription	of Assessment	Maxin	num M	Marks	5	Re	esour	ces R	equire	ed	External / Internal
15	Seminar p	presentation	Student wi Solve simp pointers.	II be asked t le problems	o(and/or): using functions and		10			Ru	brics,	Ratir	ng scal	е	Internal
	-		AD	DITIONAL	INSTRUCTIONS FOR TH	E HOD/	FACU	ILTY (IF A	NY)					