	le	Branch Coc		SCHEME FOR LEARNING			
C   0   3   4   0   2   1   1   Format	3	0	С	OUTCOME	ing ) Bhopai	' (Diploma W	KGP
	II				nics of Structure	NAME Mecha	COURS
symmetrical and unsymmetrical structural sections and calculate mom	etrical	nsymme	cal and u	of moment of inertia of symmetri	ate practical applications of plane area sections.	'Infinn	CO Des
cal significance of MI.		I.	cance of M	sections and recognize practical signific	e MI of regular plane area s	iption Calculate	LO Des
OF STUDY			ΟY	SCHEME OF STUD			
ing Teach Pract. Hrs. /Tut Hrs. LRs Required Remark				Method of teaching	ing Content	Learn	S. No.
ichings, 4 0 Handouts, chalk board, PPT, text book, charts, video film		0	4	Interactive classroom teachings, demonstration, quiz.	lane lamina, Parallel and theorems (without quare, circle, semi-circle, riangle section (without	Perpendicular axes derivations) M.I. of rectangle, s	1.
ASSESSMENT	I		VENT	SCHEME OF ASSESSN			
Maximum Marks Resources Required Exter	rks	um Ma	Maxim	tion of Assessment	Descript	Method of Assessment	S. No.
/ quarter 5 Test paper + Rubric Inte		5		allel axis theorem e/square/ circle/ semi-circle/ quarter	Define Moment of inertian State perpendicular/para Calculate MI of rectangle circle and triangle section	Pen Paper Test	1.
	IF AN	CULTY (	HOD/ FA	IONAL INSTRUCTIONS FOR THE F			

			-1	SCHEME FOR LEARNING	ì	Branch C	ode	C	ourse Co	ode	CO Code	LO Code	
KGP		oma Wing ) Bhop	al	OUTCOME	C	<b>0</b>	3	4	0	2	1	2	Format No.
COURS	E NAME	Mechanics of Struc	ture		I	I		1	1	1	1		
CO Des	cription	Articulate practical a inertia of plane area		of moment of inertia of symmet	rical and u	insymm	etrica	l struc	tural	secti	ons ar	nd cal	culate moment o
LO Des	cription	Calculate MI of various	symmetrical	and asymmetrical sections.									
				SCHEME OF STU	DY								
S. No.		Learning Content		Method of teaching	Teach Hrs.	Pra /Tut		LRs Required Handouts, chalk board,					Remarks
1.	section, Cl section, H about cen	nmetrical and unsymme hannel section, T-sectior ollow sections and built- troidal axes and any oth moment of Inertia and	n, Angle up sections er reference	Interactive classroom teachings, demonstration, quiz.	8	0		ſS.					
	1			SCHEME OF ASSESS									
S. No.	Meth Assess		Descripti	on of Assessment	Maxim	num M	arks	R	esou	rces F	Requi	red	External / Internal
1.	Pen Pap	sections		symmetrical and unsymmetrical nertia/radius of gyration	10			Test paper + Rubric					External
			ADDITIC	ONAL INSTRUCTIONS FOR THE	HOD/ FA	CULTY	(IF AI	NY)					

PCD		oma Wing ) Bhopal	SCHEME FOR LEARNING		Branch	Code	c	ourse Co	ode	CO Code	LO Code	
NGP		onia wing j bhopai	OUTCOME	C	0	3	4	0	2	2	1	Format No. 4
COURS	E NAME	Mechanics of Structure		'	i							·
CO Des	cription	Analyze structural behavior	of materials under various loading co	onditions.								
LO Des	cription	Calculate simple stress and str	in on axially loaded members and articul	ate signific	ance of	stress	– strair	n curve				
			SCHEME OF STU	DY								
S. No.		Learning Content	Method of teaching	Teach Hrs.		act. Hrs.		LRs Ro	equir	ed		Remarks
1.	deformat forces, De Hook's law Type of St Shear and Compress Standard tension, Y stress, Str Percentag Deformat applied at and minin	n of rigid, elastic and plastic bodi ion of elastic body under various efinition of stress, strain, elasticit w, Elastic limit, Modulus of elast tresses-Normal, Direct, Bending d nature of stresses ie Tensile an sive stresses. stress strain curve for steel bar u (ield stress, Proof stress, Ultimat rain at various critical points, ge elongation and Factor of safet tion of body due to axial force, fo t intermediate sections, Maximu mum stress induced, Composite nder axial loading.	demonstration, quiz. y, city. and d inder e y. rces	8	0			louts, ( text bo film				

Definitions of terms given in the content Test paper + Rubric   Explain Hook's Law Draw and explain stress- strain curve of steel bar   Numerical on Deformation of body due to axial force /forces applied at intermediate sections/ Maximum and minimum stress induced/Composite section under axial loading. 10	S. No.	Method of Assessment	Description of Assessment	Maximum Marks	<b>Resources Required</b>	/ External Internal
<b>1.</b> Pen Paper Test Draw and explain stress- strain curve of steel bar <b>10</b> Numerical on Deformation of body due to axial force /forces applied at intermediate sections/ Maximum and minimum 10			Definitions of terms given in the content		Test paper + Rubric	
Numerical on Deformation of body due to axial force /forces applied at intermediate sections/ Maximum and minimum			Explain Hook's Law			
applied at intermediate sections/ Maximum and minimum	1.	Pen Paper Test	Draw and explain stress- strain curve of steel bar	10		External
			applied at intermediate sections/ Maximum and minimum			
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)			ADDITIONAL INSTRUCTIONS FOR THE I	HOD/ FACULTY (IF AN	Y)	

				SCHEME FOR LEARNING	i	Branch C	ode	с	ourse Co	de	CO Code	LO Code	
	(Dibioi	ma win	ng ) Bhopal	OUTCOME	C	0	3	4	0	2	2	2	Format No. <b>4</b>
		Mechani	cs of Structure		I				1				
CO Descrip	ption	Analyze s	tructural behavior of	materials under various loading co	onditions.								
LO Descrip	otion	Calculate s	stress and strain due to	temperature variation									
	I			SCHEME OF STU	DY								
S. No.		Learnin	ng Content	Method of teaching	Teach Hrs.	Pra /Tut		l	LRs Re	equire	ed		Remarks
Sti tei	ress and s mperatur	strain deve	ure stresses and strain, eloped due to n in homogeneous simp ction)	Interactive classroom teachings, demonstration, quiz. le SCHEME OF ASSESS	4 MENT	0		Handouts, chalk boa PPT, text book, char video film					
S. No.	Metho Assessr		Descri	otion of Assessment	Maxim	num M	arks	R	esoui	rces R	equir	ed	External / Internal
1.	Pen Pape	er Test	Define temperature st Solve simple numerica to temperature variati	on stress and strain developed due		5		Test paper + Rubric					External
			ADDI	TIONAL INSTRUCTIONS FOR THE	HOD/ FA	CULTY	Í (IF A	NY)					

				SCHEME FOR LEARNING		Branch Co	ode	C	ourse Co	ode	CO Code	LO Code				
RGP	V (Diple	oma Wi	ng ) Bhopal	OUTCOME	C	0	3	4	0	2	2	3	Format No.			
COURS	SE NAME	Mechan	nics of Structure		I			I	1	1	1		1			
CO Des	cription	Analyze	structural behavior of n	naterials under various loading co	onditions.											
LO Des	cription	Calculate	change in volume of a me	mber for given stress condition and I	Bulk modul	us.										
		1		SCHEME OF STU	DY											
S. No.		Learni	ng Content	Method of teaching	Teach Hrs.	Pra /Tut		L	.Rs Re	equir	ed		Remarks			
1.	Biaxial an	d tri-axial s	eral strain, Poisson's ratio, tresses, volumetric strain, ulk modulus (Introduction	Interactive classroom teachings, demonstration, quiz.	6	0		Handouts, chalk board PPT, text book, charts, video film				Handouts, chalk board, PPT, text book, charts, video film				
	1			SCHEME OF ASSESS	MENT	1		1				I				
S. No.		nod of sment	Descript	ion of Assessment	Maxim	ium Ma	arks	Resources Required		Resources Required			External / Internal			
1.	Pen Pa	per Test	Define longitudinal, late modulus Calculate change in volu	al strain, Poisson's ratio, Bulk ne.		5		Test paper + Rubric				Test paper + Rubric			Internal	
			ADDITI	ONAL INSTRUCTIONS FOR THE	HOD/ FA	CULTY	(IF A	NY)								

				SCHEME FOR LEARNING		Branch C	ode	c	ourse Co	ode	CO Code	LO Code				
KGF		oma wi	ing ) Bhopal	OUTCOME	C	0	3	4	0	2	2	4	Format No. 4			
COURS	SE NAME	Mechar	nics of Structure		I	1							1			
CO Des	cription	Analyze	structural behavior of m	aterials under various loading co	onditions.											
LO Des	cription	Calculate	e average shear stress, shea	r strain and shear modulus.												
				SCHEME OF STU	DY											
S. No.		Learn	ing Content	Method of teaching	Teach Hrs.	Pra /Tut			LRs R	equi	red		Remarks			
1.	complime Concept of shear. Relation b	entary shea of single an oetween m of rigidity a	ain, modulus of rigidity, ar stress ad double shear, punching odulus of elasticity, and bulk modulus (without	Interactive classroom teachings, demonstration, quiz.	4	0		Handouts, chalk boa PPT, text book, char video film				Handouts, chalk board, PPT, text book, charts, video film				
				SCHEME OF ASSESS	MENT											
S. No.		nod of sment	Descripti	on of Assessment	Maxim	num M	arks	rs Resources			Requir	ed	External / Internal			
1.	Pen Pa	per Test	Explain complimentary sh	tween modulus of elasticity,		5			Test p	paper	с	Internal				
				ONAL INSTRUCTIONS FOR THE												

NGPV	Dinloma	Wing ) Bhopal	SCHEME FOR LEARNING	i	Branch	Code	С					LO Code					
		wing / bhopai	OUTCOME	C	: 0	3	4	0	2	2	3	1	Format No. <b>4</b>				
	NAME Mee	chanics of Structure		'		·							·				
CO Descrij	iption Drav	w &Interpret shear force	and bending moment diagrams for	various ty	pes of	beam	s and lo	oadin	g co	nditi	ions	•					
LO Descrip	ption Type	s of supports, beams and lo	ads.														
	· · · ·		SCHEME OF STU	DY													
S. No.	Le	arning Content	Method of teaching	Teach Hrs.		act. : Hrs.	Handouts, chalk board						Remarks				
ar		types of load, end condition elate them with actual field		3	0		-										
			SCHEME OF ASSESS	MENT													
S. No.	Method of Assessmen	Desc	iption of Assessment	Maxim	num M	larks	R	esoui	rces	s Req	quire	ed	External / Internal				
1.	Pen Paper Te	st Describe various type beams	es of load/ End conditions in beams /		03	03 Test paper + Rub				Test paper + Rubric Exter		External					
		ADD	ITIONAL INSTRUCTIONS FOR THE	HOD/ FA	CULT	Y (IF A	NY)										

· ·	/ing ) Bhopal	<u> </u>			Code Course Code				Code	Code	
NAME Mecha		OUTCOME	C	0	3	4	0	2	3	2	Format No. <b>4</b>
	nics of Structure		I				1			1	1
ption Draw &	kInterpret shear force	nd bending moment diagrams for v	arious ty	pes of b	eams	and lo	pading	g cond	itions	•	
otion Calculat loads.	e shear force and bendin	g moment and draw shear force diagram and bending moment diagram for beam SCHEME OF STUDY						eams w	ith giv	ven end	conditions and
		SCHEME OF STU	DY								
Lear	ning Content	Method of teaching	Teach Hrs.			l	.Rs Re	equire	d		Remarks
ending moment, near force and be erivation). hear force and be antilever, simply s verhanging beam niformly distribut combination of ar	Relation between load, nding moment (without ending moment diagram f supported beams and s subjected to point loads ed loads and couple y two types of loading),		17	0		LRs Required Handouts, chalk board, PPT, text book, charts, video film					
		SCHEME OF ASSESS	MENT								
Method of Assessment	Descr	ption of Assessment	Maxim	ium Ma	arks	R	esour	ces R	equir	ed	External / Internal
Pen Paper Test	moment. Calculate & draw shea for Cantilevers, simply su	r force and bending moment diagram		14		Test paper + Rubric			Test paper + Rubric		External
	Learn Incept and definit anding moment, I ear force and be privation). Thear force and be ntilever, simply s erhanging beam iformly distribut ombination of an int of contra flex Method of Assessment	Ioads.   Learning Content   Incept and definition of shear force and anding moment, Relation between load, ear force and bending moment (without privation).   near force and bending moment (without privation).   near force and bending moment diagram fortilever, simply supported beams and erhanging beams subjected to point loads iformly distributed loads and couple privation of any two types of loading), and of contra flexure.   Method of Assessment Description   Pen Paper Test State relationship betwoent.   Calculate & draw sheaf for Cantilevers, simply supported beams for loading as private for simple supported beams for loadin	Itearning Content Method of teaching   Incept and definition of shear force and inding moment, Relation between load, ear force and bending moment (without rivation). Interactive classroom teachings, demonstration, quiz.   hear force and bending moment diagram for ntilever, simply supported beams and erhanging beams subjected to point loads, iformly distributed loads and couple ombination of any two types of loading), int of contra flexure. Interactive classroom teachings, demonstration, quiz.   Method of Assessment Scheme of Assessment Scheme of Assessment   Pen Paper Test State relationship between load, shear force and bending moment. Calculate & draw shear force and bending moment diagram for Cantilevers, simply supported beams and overhanging beams for loading as per syllabus	SCHEME OF STUDY   Learning Content Method of teaching Teach Hrs.   Incept and definition of shear force and inding moment, Relation between load, ear force and bending moment (without rivation). Interactive classroom teachings, demonstration, quiz. 17   near force and bending moment diagram for ntilever, simply supported beams and erhanging beams subjected to point loads, iformly distributed loads and couple pombination of any two types of loading), int of contra flexure. SCHEME OF ASSESSMENT   Method of Assessment Description of Assessment Maxim for Calculate & draw shear force and bending moment diagram for   Pen Paper Test State relationship between load, shear force and bending moment. State relationship between load, shear force and bending moment.   Pen Paper Test State relationship supported beams and overhanging beams for loading as per syllabus Interactive classroad bending moment diagram for	SCHEME OF STUDY   Learning Content Method of teaching Teach Hrs. Prace /Tut I   Incept and definition of shear force and inding moment, Relation between load, ear force and bending moment (without rivation). Interactive classroom teachings, demonstration, quiz. 17 0   reach grade and bending moment diagram for intilever, simply supported beams and erhanging beams subjected to point loads, iformly distributed loads and couple ombination of any two types of loading), int of contra flexure. SCHEME OF ASSESSMENT   Method of Assessment Description of Assessment Maximum Maister force and bending moment.   Pen Paper Test State relationship between load, shear force and bending moment. 14	SCHEME OF STUDYLearning ContentMethod of teachingTeach Hrs.Pract. /Tut Hrs.Incept and definition of shear force and unding moment, Relation between load, ear force and bending moment (without rivation). near force and bending moment diagram for ntilever, simply supported beams and erhanging beams subjected to point loads, iformly distributed loads and couple ombination of any two types of loading), int of contra flexure.Interactive classroom teachings, demonstration, quiz.170Method of AssessmentScheme OF AssessmentMaximum MarksMethod of AssessmentDescription of AssessmentMaximum MarksPen Paper TestState relationship between load, shear force and bending moment. Calculate & draw shear force and bending moment diagram for Cantilevers, simply supported beams and overhanging beams for loading as per syllabus14	SCHEME OF STUDY   Learning Content Method of teaching Teach Hrs. Pract. Pract. I   uncept and definition of shear force and inding moment, Relation between load, ear force and bending moment (without rivation). Interactive classroom teachings, demonstration, quiz. 17 0 Hand PPT, tive of the state of the stat	SCHEME OF STUDYLearning ContentMethod of teachingTeach Hrs.Pract. /Tut Hrs.LRs Re Handouts, or PPT, text be video filmIncept and definition of shear force and nding moment, Relation between load, ear force and bending moment (without rivation). near force and bending moment diagram for ntilever, simply supported beams and erhanging beams subjected to point loads, iformly distributed loads and couple ombination of any two types of loading), int of contra flexure.SCHEME OF ASSESSMENTMaximum MarksResourceMethod of AssessmentState relationship between load, shear force and bending moment. Calculate & draw shear force and bending moment diagram for Cantilevers, simply supported beams and overhanging beams for loading as per syllabus1414	SCHEME OF STUDY   Learning Content Method of teaching Teach Hrs. Pract. LRs Require   incept and definition of shear force and nding moment, Relation between load, ear force and bending moment (without rivation). Interactive classroom teachings, demonstration, quiz. 17 0 Handouts, chalk be PPT, text book, chavide of the cols and couple on the of any two types of loading), int of contra flexure. SCHEME OF ASSESSMENT Maximum Marks Resources Resources Resources Resources Resources Resources Resources and bending moment. Calculate & draw shear force and bending moment diagram for Cantilevers, simply supported beams and overhanging beams for loading as per syllabus 14	SCHEME OF STUDY   Learning Content Method of teaching Teach Hrs. Pract. LRs Required   Interactive classroom teachings, ear force and bending moment, Relation between load, ear force and bending moment (without rivation). Interactive classroom teachings, demonstration, quiz. 17 0 Handouts, chalk board, PPT, text book, charts, video film   refrace and bending moment diagram for ntilever, simply supported beams and erhanging beams subjected to point loads, iformly distributed loads and couple ombination of any two types of loading), int of contra flexure. SCHEME OF ASSESSENT Maximum Marks Resources Required for calculate & draw shear force and bending moment diagram for for Calculate & draw shear force and bending moment diagram for for Calculate & draw shear force and bending moment diagram for for Calculate & draw shear force and bending moment diagram for for Calculate set of the s	SCHEME OF STUDY   Learning Content Method of teaching Teach Hrs. Pract. LRs Required   Interactive classroom teachings, demonstration, quiz. Interactive classroom teachings, demonstration, quiz. 17 0 Handouts, chalk board, PPT, text book, charts, video film   river of cre and bending moment (without rivation). Interactive classroom teachings, demonstration, quiz. 17 0 PPT, text book, charts, video film PPT, t

				SCHEME F	OR LEARNIN	IG	Branc	h Cod	e	c	ourse Co	ode	CO Code	LO Code					
KGPV		ma Wing ) Bl	nopai	OU <sup>.</sup>	TCOME	C	:   (	כ	3	4	0	2	4	1	Format No. <b>Z</b>				
COURS	E NAME	Mechanics of Stru	cture											I					
CO Des	cription	Determine the benc	ling and she	ar stresses in beam	s under different lo	ading cond	itions	•											
LO Deso	cription	Determine bending	stress at a g	iven location and plo	ot bending stress di	stribution fo	or give	n be	eam u	inder {	given l	oads.							
					SCHEME OF STU	JDY													
S. No.		Learning Conte	nt	Metho	d of teaching	Teach Hrs.		ract it H	rs. LRs Requir Handouts, chalk board,				ed		Remarks				
1	assumptio derivation bending st Concept o	nd theory of pure ber ons, flexural equation ), bending stresses ar cress distribution diag f moment of resistan problems using flexu	(without nd their natu ram. ce and simp	ire, quiz.	lassroom emonstration,	8	0			Handouts,				Handouts, chalk board, PPT, text book, charts,					
				SC	HEME OF ASSES	SMENT													
S. No.	Meth Assess		Desci	iption of Assessi	ment	SESSMENT Maximum Marks		rks	Resources Requir					External / Internal					
1	Pen Paper	Test Vrite flex Define m	plain theory of pure bending / assumptions of theory of re bending. rite flexural equation. fine moment of resistance and its significance. Ive simple numerical problem using flexural equation.							Test paper + Rubrics					External				
			ADD	DITIONAL INSTRU	ICTIONS FOR THI	HOD/ FA		<b>[Y (</b> ]	IF AI	NY)									

RGPV (Diploma Wing ) Bhopal	SCHEME FOR LEARNING	Branch Code	Course Code	CO Code	LO Code	Format No <b>4</b>
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			OUTCOME	C	0	3	4	0	2	4	2	
NAME	Mechani	cs of Structure						_				1
iption	Determin	e the bending and shear st	resses in beams under different loa	ding cond	itions.							
iption	Determin	e shear stress at a given loc	ation and plot shear stress distribut	ion for vari	ious bea	am sec	tions.					
/			SCHEME OF STU	DY								
	Learni	ng Content	Method of teaching	Teach Hrs.				LRs Re	equire	ed		Remarks
elation bet stress for re shear stress Shear stress ectangular sectangular section, I-se	tween ma ectangular s distribut s distribut r, circle, ho r, circular, ection, T s	ximum and average shear r and circular section, tion diagram. tion for square, ollow, square, angle sections, channel ection. Simple numerical	Interactive classroom teachings, demonstration, quiz.	8	3 0			k boar , text k, char	ts,			
			SCHEME OF ASSESS	MENT								
		Description	on of Assessment	Maxim	num M	larks	R	esoui	ces R	equir	ed	External / Internal
Pen Paper T	Test	Derive relation between r for rectangular / circular s	naximum and average shear stress section.		10		Test paper + Rubric			c		External
	ption ption ption hear stres elation be tress for re hear stres hear stres ectangular ectangular ectangular ectangular ectangular ectangular ectangular ectangular ectangular ectangular	ption Determin ption Determin Learni hear stress equation elation between ma tress for rectangular hear stress distribut hear stress distribut ectangular, circle, he ectangular, circular, ection, I-section, T s	Iption Determine the bending and shear stress   ption Determine shear stress at a given loc   Learning Content   hear stress equation (without derivation), elation between maximum and average shear tress for rectangular and circular section, hear stress distribution diagram. hear stress distribution for square, ectangular, circle, hollow, square, ectangular, circular, angle sections, channel ection, I-section, T section. Simple numerical roblems based on shear equation.   Method of Assessment Descriptic Derive relation between r for rectangular / circular s Solve numerical problem	NAME Mechanics of Structure   ption Determine the bending and shear stresses in beams under different load   ption Determine shear stress at a given location and plot shear stress distribut   SCHEME OF STUE SCHEME OF STUE   Learning Content Method of teaching   Interactive classroom teachings, demonstration, quiz.   lear stress equation (without derivation), Interactive classroom   elation between maximum and average shear Interactive classroom   tress for rectangular and circular section, Interactive classroom   hear stress distribution for square, ectangular, circular, angle sections, channel SCHEME OF ASSESS   Method of Assessment SCHEME OF ASSESS   Method of Assessment Description of Assessment   en Paper Test Write shear stress equation. Derive relation between maximum and average shear stress for rectangular / circular section. Solve numerical problem based on shear equation for a	NAME Mechanics of Structure   ption Determine the bending and shear stresses in beams under different loading cond   ption Determine shear stress at a given location and plot shear stress distribution for var   SCHEME OF STUDY SCHEME OF STUDY   Learning Content Method of teaching Teach Hrs.   hear stress equation (without derivation), elation between maximum and average shear tress for rectangular and circular section, hear stress distribution diagram. Interactive classroom teachings, demonstration, quiz. 8   Scheme OF ASSESSMENT Scheme OF ASSESSMENT   Method of Assessment Description of Assessment Maxim   en Paper Test Write shear stress equation. Derive relation between maximum and average shear stress for rectangular / circular section. Solve numerical problem based on shear equation for a Maxim	NAME Mechanics of Structure   ption Determine the bending and shear stresses in beams under different loading conditions.   ption Determine shear stress at a given location and plot shear stress distribution for various beams   SCHEME OF STUDY SCHEME OF STUDY   Learning Content Method of teaching Teach Hrs. Prach / Tut   hear stress equation (without derivation), elation between maximum and average shear tress for rectangular and circular section, hear stress distribution diagram. Interactive classroom teachings, demonstration, quiz. 8 0   SCHEME OF ASSESSMENT SCHEME OF ASSESSMENT Method of Assessment 8 0   Method of Assessment Vrite shear stress equation. Description of Assessment Maximum Maximum Maximum and average shear stress for rectangular / circular section. Description of Assessment Maximum Maximum Maximum and average shear stress for rectangular, angle sections, channel ection, I-section, T section. Simple numerical roblems based on shear equation. Description of Assessment Maximum Maximum Maximum and average shear stress for rectangular derive relation between maximum and average shear stress for rectangular / circular section. 10	NAME Mechanics of Structure   ption Determine the bending and shear stresses in beams under different loading conditions.   ption Determine shear stress at a given location and plot shear stress distribution for various beam sec   SCHEME OF STUDY Pract.   Learning Content Method of teaching Teach Hrs. Pract.   hear stress equation (without derivation), elation between maximum and average shear tress distribution for square, ectangular, circular, angle sections, channel ection, I-section, T section. Simple numerical roblems based on shear equation. SCHEME OF ASSESSMENT   Method of Assessment Description of Assessment Maximum Marks   Method of reaching correct angular / circular section. Description of assessment 10	NAME Mechanics of Structure   ption Determine the bending and shear stresses in beams under different loading conditions.   ption Determine shear stress at a given location and plot shear stress distribution for various beam sections.   SCHEME OF STUDY Teach Pract. Pract. Interactive classroom R O Hand   hear stress equation (without derivation), elation between maximum and average shear tress for rectangular and circular section, hear stress distribution diagram. Interactive classroom teachings, demonstration, quiz. 8 O Hand chall PPT, book vide   Method of Assessment Description of Assessment SCHEME OF ASSESSMENT R   Method of Assessment Description of Assessment Maximum Marks for rectangular / circular section. Solve numerical problem based on shear equation for a Itest	NAME Mechanics of Structure   ption Determine the bending and shear stresses in beams under different loading conditions.   ption Determine the bending and shear stresses in beams under different loading conditions.   ption Determine shear stress at a given location and plot shear stress distribution for various beam sections.   SCHEME OF STUDY Learning Content Method of teaching Pract. Hrs. Pract. /Tut Hrs. LRs Ref   hear stress equation (without derivation), elation between maximum and average shear tress for rectangular and circular section, hear stress distribution diagram. Interactive classroom teachings, demonstration, quiz. 8 0 Handouts, chalk boar PPT, text book, char video film.   cectangular, circle, hollow, square, ectangular, circle, hollow, square, ectangular, circle, hollow, square, ectangular, circle, hollow, square, ectangular, circle, nollow, square, ectangular, circle on Simple numerical roblems based on shear equation. Maximum Marks Resour Test paper   Method of Assessment Description of Assessment Maximum Marks Test paper   en Paper Test Write shear stress equation. Derive relation between maximum and average shear stress for rectangular / circular section. Solve numerical problem based on shear equation for a 10	NAME Mechanics of Structure   ption Determine the bending and shear stresses in beams under different loading conditions.   ption Determine shear stress at a given location and plot shear stress distribution for various beam sections.   SCHEME OF STUDY   Learning Content Method of teaching Teach Hrs. Pract. LRs Require   hear stress equation (without derivation), leation between maximum and average shear tress for rectangular and circular section, hear stress distribution for square, ectangular, circular, angle sections, channel ection, I-section, Simple numerical roblems based on shear equation. Method of SCHEME OF ASSESSMENT 0 Handouts, chalk board, PPT, text book, charts, video film.   Method of Assessment Description of Assessment Maximum Marks Resources R Test paper + Rubri for rectangular / circular section. Solve numerical problem based on shear equation for a 10	NAME Mechanics of Structure   ption Determine the bending and shear stresses in beams under different loading conditions.   ption Determine shear stress at a given location and plot shear stress distribution for various beam sections.   SCHEME OF STUDY Learning Content Method of teaching Teach Hrs. Pract. /Tut Hrs. LRs Required   hear stress equation (without derivation), leation between maximum and average shear tress for rectangular and circular section, hear stress distribution for square, ectangular, circular, angle sections, channel ectangular, circular, angle sections, channel roblems based on shear equation. Interactive classroom teachings, demonstration, quiz. 8 0 Handouts, chalk board, PPT, text book, charts, video film.   Method of Assessment Description of Assessment Maximum Marks Resources Require Resources Require Rubric for rectangular / circular section. Solve numerical problem based on shear equation for a Test paper + Rubric	NAME Mechanics of Structure   iption Determine the bending and shear stresses in beams under different loading conditions.   ption Determine shear stress at a given location and plot shear stress distribution for various beam sections.   SCHEME OF STUDY   Learning Content Method of teaching Pract. Hrs. LRs Required   hear stress equation (without derivation), hear stress distribution derivation), hear stress distribution diagram. Interactive classroom teachings, demonstration, quiz. 8 0 Handouts, chalk board, PPT, text book, charts, video film.   hear stress distribution diagram. SCHEME OF ASSESSHENT SCHEME OF ASSESSHENT East book, charts, video film.   Method of Assessment Description of Assessment Maximum Marks Resources Required   Write shear stress equation. Derive relation between maximum and average shear stress for rectangular, circular, angle sections, channel ection, I-section, T section. Simple numerical roblem based on shear equation. Maximum Marks Resources Required   Method of Assessment Description of Assessment Id

RGPV (Diploma Wing ) Bhopal			SCHEME FOR LEARNING OUTCOME			ch Coc	le	Course Code			CO Code	LO Code			
		pai				0	3	4	0	2	5	1	Format No. <b>Z</b>		
COURSE NAME Mechanics of Structure															
CO Description Analyse the colum		Analyse the column for	various l	oading and end conditions.											
LO Description Discuss ways of failure of c			of column	s and end conditions of columns.											
				SCHEME OF ST	UDY										
S. No.		Learning Content		Method of teaching	Teach Hrs.		Prac out H	-	l	Rs R	equir	ed	Remarks		
1	long colun gyration, S	f compression member, a nn, Effective length, Radi lenderness ratio, Types o for columns, Buckling of umns.	us of of end	Interactive classroom teachings, demonstration, quiz.	4	0			Handouts, chalk board, PPT, text book, charts, video film.						
				SCHEME OF ASSES	SMENT										
S. No.	Method of Descri		ption of Assessment	Maxim	rks	<b>Resources Required</b>					External / Internal				
1	Pen Paper Test Differentiate short an Discuss behavior at f Define effective leng ratio. Discuss types of end			ilure of colums. h / radius of gyration / slenderness	5				Test paper + Rubric					Internal	
			ADDI	TIONAL INSTRUCTIONS FOR TH	E HOD/ FA		.тү (	IF AI	NY)						

RGPV (Diploma Wing ) Bhopal		, S	SCHEME FOR LEARNING			Branch Code				CO Code	LO Code		
		l	OUTCOME	C	0	3	4	4 0 2 5		. 5	2	Format No. <b>4</b>	
COURS	E NAME	Mechanics of Structure	I		I	I					I		
CO Description Analyse the column for various l			ious load	ling and end conditions.									
LO Description Calculate safe load for axially loaded				columns applying Euler's formula /	Rankine's f	ormula							
		·		SCHEME OF STU	IDY								
S. No.	Learning Content			Method of teaching	Teach Hrs.	Pra /Tut		LRs Required					Remarks
1	Euler's theory, assumptions made in Euler's theory and its limitations, Application of Euler's equation to calculate buckling load. Rankine's formula and its application to calculate crippling load. Concept of working load/safe load, design load and factor of safety.			Interactive classroom teachings, demonstration, quiz.	8	0		Handouts, chalk board, PPT, text book, charts, video film.					
				SCHEME OF ASSESS	MENT								
S. No.		od of Designment	escripti	on of Assessment	Maximum Marks			<b>Resources Required</b>					External / Internal
1	Pen Pape	Test Write assumptio What is the limit	•	8			Test paper + Rubric					External	
				ONAL INSTRUCTIONS FOR THE	HOD/ FA		Í (IF A	NY)					

			9	<b>SCHEME FOR LEARNIN</b>	G	Branch Code			c	ourse Co	ode	CO Code	LO Code		
RGPV (Diploma Wing ) Bhopal		opal	OUTCOME	C	0		3	4 0 2 6			6	1	Format No. <b>4</b>		
COURSE NAME Mechanics of Structure					I	I			1	1			1		
<b>CO Description</b> Evaluate axial forces in the member				rs of perfect plane trusses.											
LO Description Calculate forces in members of truss			ses subjected to point loads at joints	by Method	l of join	its ar	nd IV	1etho	d of se	ection	s.				
	· · ·			SCHEME OF STU	DY										
S. No.	Learning Content			Method of teaching	Teach Hrs.	Pra /Tut	act. Hrs	•	LRs Required					Remarks	
1	French truss light truss, k Assumption Calculate su subjected to Calculate fo	n of frames isses (Simple, Fink, co s, pratt truss, Howe tr King post and Queen p s in analysis. Ipport reactions for tr point loads at joints rces in members of tr oints and Method of s	uss, North post truss) usses uss using	Interactive classroom teachings, demonstration, quiz.	8 0				Handouts, chalk board, PPT, text book, charts, video film.						
				SCHEME OF ASSESS	MENT	1							I		
S. No.	Method of Description			ion of Assessment	Maximum Marl			Resources Required					ed	External / Internal	
1	Pen Paper T	Assumption	ns in analysis	ne and imperfect frames. of perfect frames. joints / method of section.		10				paper	Internal				
			ADDITI	ONAL INSTRUCTIONS FOR THE	HOD/ FA	CULT	( (IF	AN	IY)						