RG	PV (Diple	oma Wing) Bhopal		OR LEARNING		Brancl	h Code	C	ourse	Code	CO Code	LO Code	Format No. 4
	- · (r - ·	······································	OUI	ГСОМЕ		R () 1	4	0	2	1	1	
	URSE ME	Fluid Mechanics &	& Hydraulic Machinery	7			I						1
CO Des	scription	Discuss fluids, pro	operties of fluid, pressu	re and its measur	rement	s.							
LO Des	cription	Compare different	fluids on the basis of the	ir properties/chara	acteristi	cs.							
				SCHEME O	F STU	DY							
S. No.	Lea	rning Content	Teaching –Learning Method	Description of Process	T-L	Teach Hrs.	Pract /Tut H		L	Rs Re	equired		Remarks
1	fluid- Ide Compress Incompress Newtonia Newtonia and nor rotationa fluids, Density, Specific volume, surface t	eal and Real fluids, sible and essible fluids, an and non- an fluid, viscous n- viscous fluids, l and ir-rotational fluid properties- Specific weight, gravity, Specific Vapour pressure, tension, capillarity, c and kinematic	Interactive classroom teaching, demonstration, quiz, assignments, tutorial.	Students will lea processes throug discussion with teacher on co provided by te and random quiz by them.	gh the h the ontent eacher	06	00		PPT,	text b	chalk boar ook, char eo film.		
	1	I		SCHEME OF A	SSESS	MENT	-						
S. No.	Meth	od of Assessment	Description of A	Assessment		timum arks		R	esourc	es Re	quired		External / Internal
1	O. Method of Assessment Paper pen test		Student will be ask given fluids on the properties.	-		10	Questio	n pa	per + F	Rating	scale		Internal
			ADDITIONAL INST	RUCTIONS FOI	R THE	HOD/ F	ACULT	Y (II	FANY)			
				Part of Progres	alere T	act I							

R	GPV (Dipl	oma Wing) Bhopa	1		FOR LEARNIN	IG	Brai	nch C	ode		ırse de	CO Code	LO Code	Format No. 4
	` •			0	UTCOME		R	0	1	4) 2	1	2	
	URSE ME	Fluid Mechanics	& Hydra	ulic Machinery				1	1					
CO Des	cription	Discuss fluids, pro	operties	of fluid, pressu	e and its measu	rement	5.							
LO Des	cription	Measure pressure u	ising sim	ple and differen	tial manometers.									
		1			SCHEME O	F STU	DY							
S. No.	Lear	rning Content		ng –Learning Method	Description of Process	f T-L	Teach Hrs.	1	ract. t Hrs.		LRs R	equired		Remarks
1	pressure, pressure	ement: Fluid and its units,		· • •	Teacher demonstrate procedure of lab The students learn through pr	will	04		06	PPT	text b o film	chalk boar ook, charts , virtual la	3,	
					SCHEME OF A	SSESS	MENT							
S. No.	Meth	od of Assessment	I	Description of A	ssessment		imum arks			Resour	ces R	equired		External / Internal
1	Laborato observati		ed to measure and differential	10				on sche les /rut		heck-list		Internal		
	1		ADDI'	FIONAL INST	RUCTIONS FO	R THE	HOD/ F	'ACU	LTY	(IF AN	Y)			
					Part of La						-			

V (Diplom	a Wing) Bhopal			Br	anch Co	ode	Co	ourse C	ode	CO Code	LO Code	Format No.
× •		OUICO	ME	R	0	1	4	0	2	1	3	4
URSE ME	Fluid Mechanics &	& Hydraulic Machinery	,									
cription	Discuss fluids, pro	perties of fluid, pressur	e and its measur	ements.								
cription	Solve numerical pr	oblems based on Pascal's	s law.									
	1		SCHEME O)F STUD	DY							
Lea	rning Content	Teaching –Learning Method	Description of Process	T-L	Teach Hrs.			L	Rs Re	quired	R	emarks
on Pasca manome	l's law, Simple and Differential ters for pressure	teaching, demonstration, quiz,	processes throug discussion with teacher on of provided by the	gh the h the content teacher	05	(00	board,	, PPT,	text book,		
			SCHEME OF A	SSESSN	AENT							
Meth	od of Assessment	Description of A	ssessment					Resou	rces R	equired		External / Internal
	Theory exam			0	6		Que	estion pa	aper +	Rating sca	le	External
1		ADDITIONAL INST	FRUCTIONS FO	RTHE	HOD/ F.	ACUL	ГY (IF	ANY)				
								,				
	JRSE ME cription cription Lean Numeric on Pasca manomet measurer	ME Fluid Mechanics & cription Discuss fluids, pro- cription Solve numerical pro- Learning Content Numerical problems based on Pascal's law, Simple and Differential	V (Diploma Wing) Bhopal OUTCO JRSE ME Fluid Mechanics & Hydraulic Machinery Cription Discuss fluids, properties of fluid, pressure cription Solve numerical problems based on Pascal's Learning Content Teaching –Learning Method Numerical problems based on Pascal's law, Simple and Differential manometers for pressure measurement. Interactive classroom teaching, demonstration, quiz, assignments, tutorial. Method of Assessment Description of A Student will be asked pressure using Pascal' given problem.	JRSE ME Fluid Mechanics & Hydraulic Machinery cription Discuss fluids, properties of fluid, pressure and its measure cription Solve numerical problems based on Pascal's law. Learning Content Teaching –Learning Method Description of Process Numerical problems based on Pascal's law, Simple and Differential manometers for pressure measurement. Interactive classroom teaching, demonstration, quiz, assignments, tutorial. Students will lea processes throu discussion wit teacher on or provided by them. SCHEME OF A Method of Assessment Description of Assessment Theory exam Student will be asked to calculate pressure using Pascal's law for a given problem.	V (Diploma Wing) Bhopal Definition For Differential and manometers for pressure and its measurement. R JRSE ME Fluid Mechanics & Hydraulic Machinery R Discuss fluids, properties of fluid, pressure and its measurements. Discuss fluids, properties of fluid, pressure and its measurements. cription Discuss fluids, properties of fluid, pressure and its measurements. SCHEME OF STUE Learning Content Teaching -Learning Method Description of T-L Process Numerical problems based on Pascal's law, Simple and Differential manometers for pressure measurement. Interactive classroom teaching, demonstration, quiz, assignments, tutorial. Students will learn the teacher on content provided by teacher and random quiz taken by them. Kethod of Assessment Description of Assessment Maxi Ma Method of Assessment Student will be asked to calculate pressure using Pascal's law for a given problem. Maxi Ma	V (Diploma Wing) Bhopal Brother and its measurements of fluid, pressure and its measurements. R 0 JRSE ME Fluid Mechanics & Hydraulic Machinery R 0 JRSE ME Fluid Mechanics & Hydraulic Machinery R 0 Discuss fluids, properties of fluid, pressure and its measurements. Teaching negative Teaching negative R 0 Cription Discuss fluids, properties of fluid, pressure and its measurements. Teaching negative Teachin	V (Diploma Wing) BhopalOUTCOMER01IRSE MEFluid Mechanics & Hydraulic Machinery Uscass fluids, proverties of fluid, pressure and its measurements. Solve numerical problems based on Pascal's law.Discuss fluids, proverties of fluid, pressure and its measurement.R01Image: Discuss fluids, proverties of fluid, pressure and its measurement.Discuss fluids, proverties of fluid, pressure and its measurement.Discuss fluids, proverties of fluid, pressure and its measurement.Image: Discuss fluids, proverties of fluid, pressure and its measurement.Image: Discuss fluids, proverties of fluid, pressure and its measurement.Image: Discuss fluids, proverties of fluid, pressure and its measurement.Image: Discuss fluids, proverties of fluid, pressure and its measurement.Image: Discuss fluids, proverties of fluid, pressure and its measurement.Image: Discuss fluids, proverties of fluid, pressure and its measurement.Image: Discuss fluids, proverties of fluid, pressure and its measurement.Image: Discuss fluids, proverties of fluid, pressure and its measurement.Image: Discuss fluids, proverties of fluid, pressure and its measurement.Image: Discuss fluids, proverties of fluid, pressure and its measurement.Image: Discuss fluids, proverties of fluid, pressure and its measurement.Image: Discuss fluids, pressure and its measurement.Image: Discuss f	Note of the initial index of the initial initial index of the initial initial index of the initial in	V (Diploma Wing) BhopalOUTCOMEInterval of the problem	V (Diploma Wing) BhopalOUTCOMER01402R01402R01402R01402PressFluid Mechanics & Hydraulic MachineryDiscuss fluids, properties of fluid, pressure and its measurements.Solve numerical problems based on Pascal's law.SCHEME OF STUDYValue Teaching -Learning MethodDescription of T-L ProcessPract. Hrs. /Tut Hrs.LRs ReNumerical problems based on Pascal's law, Simple and Differential manometers for pressure assignments, tutorial.Students will learn the processes through the demonstration, quiz, discussion with the teacher on content provided by teacher and random quiz taken by them.Maximum MarksResources Resources Resource	V (Diploma Wing) Bhopal SCHEME FOR LEARNING OUTCOME Branch Cole Course Course Cole Code RSE ME Fluid Mechanics & Hydraulic Machinery R 0 I 4 0 2 I RSE ME Fluid Mechanics & Hydraulic Machinery status R 0 I 4 0 2 I RSE ME Discuss fluids, properties of fluid, pressure and its measurements. R	Branch Coll Branch Coll Branch CollCode Code CodeRobICodeCodeCodeCodeRSE MEFluid Mechanics & Hydraulic MachineryDiscuss fluids, properties of fluid, pressure and its measurement.Solve numerical problems based on Pascal's law.Solve numerical problems based on Pascal's law, Simple and Differential manometers for pressureTeaching -Learning MethodDescription of T-L ProcessTeach ProcessPract. Hrs.Pract. /Tut Hrs.LRsRequiredRNumerical problems based on Pascal's law, Simple and Differential manometers for pressure measurement.Interactive classroom assignments, tutorial.Students will learn the processes through the processes through the provided by teacher and random quiz teacher on Yandom quiz.Interactive classroom assignments, tutorial.Student will be asked to calculate provided by teacher and random quiz teacherMaximum MarksResources tequiredCodeCodeMethodAssessmentDescription of AssessmentMaximum MarksQuestion paper + Rating scaleCodeTheory examStudent will be asked to calculate pressure using Pascal's law for a given problem.06Question paper + Rating scaleQuestion paper + Rating scale

R	GPV (Dip	oloma Wing) Bhop	al		FOR LEARNING	J	Branch	Cod	e C	ourse C	ode	CO Code	LO Code	Format No. 4
	-	-		00	ICOME		R)	1 4	0	2	2	1	
	URSE ME	Fluid Mechanics	& Hydra	ulic Machinery	7	'	'		i	'				·
CO Des	cription	Measure discharg	ge using `	Venturimeter, (Orifice-meter, Pi	tot-tube	e.							
LO Des	cription	Compare different	fluid flow	w based on prop										
					SCHEME OF									
S. No.	Lear	rning Content		ng –Learning ⁄Iethod	Description of Process	f T-L	Teacl Hrs.		Pract. ut Hrs.	I	LRs F	Required		Remarks
1	potential energy, total energination flow- L and trans	of Fluid Flow:- energy, kinetic pressure energy, rgy, Types of fluid aminar, turbulent sient, Steady and y, Uniform and orm	Interacti teaching demonst assignme	,	Students will leaprocesses throug discussion with teacher on corprovided by the and random quita by them.	gh the h the content teacher	04	00		boar	louts, d, PP o film	T, text b	nalk pok,	
	1	I		S	SCHEME OF AS	SESSN	IENT			1			I	
S. No.	Metho	od of Assessment	D	escription of A	ssessment	Maxir Mar			R	esourc	es Re	quired		External / Internal
1	P	aper pen test	given	t will be asked t fluid flows base ties/characterist	d on given	10)		Quest	ion pap	er + R	Rating sca	nle	Internal
			ADDIT	IONAL INSTR	RUCTIONS FOR			ACU	LTY (l	F ANY)			
					Part of Progressi	ive Test	- II							

RG	PV (Diplo	oma Wing) Bhopa	I SCHEME FOR		B	ranch (Code		urse C	Code	CO Code 2	LO Code 2	Format No. 4
	URSE ME	Fluid Mechanics	& Hydraulic Machinery		A		1		U	2	2		
CO Des	cription	Measure discharg	ge using Venturimeter, Ori	fice-meter, Pi	tot-tube.								
LO Des	cription	Apply Bernoulli's	theorem and Continuity equa	0									
				SCHEME OF	F STUDY	7							
S. No.	Lear	ming Content	Teaching –Learning Method	Description Proces		Teach Hrs.	l /'	act. Fut Irs.		L Rs R	Required		Remarks
1	Continui Bernoull Assumpt its applie	i's theorem:- ions, Equation and	Interactive classroom teaching, demonstration, quiz, assignments, tutorial.	the p through discussion w teacher on provided by and random of taken by ther	content teacher quiz n.	06	00		boar		ch T, text be eo film.	halk ook,	
			SCI	HEME OF AS	SESSMI	ENT							
S. No.	Metho	od of Assessment	Description of Asse	ssment	Maxim Mark			Re	source	es Rec	quired		External / Internal
1	ן ן	Theory exam	Student will be asked to a Bernoulli's theorem and C equation for a given situa	Continuity	10		(Juestic	on pape	er + R	ating sca	lle	External
			ADDITIONAL INSTRU			OD/ FA	CUL	ГY (II	F ANY)			
				Part of Theorem	ry Exam								

R	AGPV (Dig	oloma Wing) Bhopal		R LEARNING	B	ranch	Co	de	Cours	se (Code	C C C O		LO Code	
	•		OUT	COME	R	2 0)	1	4	l) 2	2 2)	3	
	URSE AME	Fluid Mechanics &	Hydraulic Machinery		I	I	I							1	
CO Des	scription	Measure discharge	using Venturimeter, Orif	ice-meter, Pitot	t-tube.										
LO Des	scription	Measure discharge u	sing Venturimeter, Orifice-	meter, Pitot-tub	e.										
				SCHEME OF S	STUDY										
S. No.	Le	earning Content	Teaching –Learning Method	Description Proces		Tea Hr		Pr	act. /Tı Hrs.	ut	I	.Rs R	equi	ired	Remarks
1	Orifice- Construct discharge meter, Construct	ction and working e through neter, Vena contracta meter- Principle ction and working e through Orifice- Pitot-tube - Principle	hands on practice, lab assignment, quiz, assignments.	Teacher demonstrate procedure of la The students w through practic	vill learn	06		09			boa	k, cha 1, vi	PPT,	text video	
			SCI	HEME OF ASS	ESSMEN	NT					1				
S. No.	Meth	od of Assessment	Description of Asses	ssment	Maximur Marks	n			Resou	rce	s Re	quire	d		External / Internal
1		boratory test by observation	Student will be asked to m discharge in a pipe using a instrument.		10	(Obse	ervati	on sche /rating						External
	1		ADDITIONAL INSTRUC	CTIONS FOR 7	ГНЕ НО	D/ FA	CUI	LTY	(IF AN	VY))				I

R	GPV (Dir	oloma Wing) Bhop	ดไ		OR LEARNING	g Bra	anch (Code	Cou	ırse (Code	CO Code	LO Code	Format No. 4
				OUI	COME	R	0	1	4	0	2	3	1	
	URSE ME	Fluid Mechanics	& Hydra	ulic Machinery		I								
CO Des	cription	Solve numerical p	oroblems	based on minor,	major losses in	pipes and	impac	ct of je	et.					
LO Des	cription	Measure Reynolds	number a	and minor losses i	n pipes.									
		1			SCHEME OI	F STUDY								
S. No.	Lea	rning Content		ing –Learning Method	Description Proce			each Irs.	Pra /Tu Hr	ıt	Ι	.Rs Requ	iired	Remarks
1	Laminar transien number, laminar transien	Through Pipes: r, turbulent and at flow, Reynolds differentiation of , turbulent and at flow on the basis olds number, minor apipes.	Lab hands o assignm assignm	· · · ·	Teacher will d the procedure of The students through practic	of lab work. will learn	02		09		PPT,	louts, cha text book, o film, vir ls	charts,	
	1		1	S	CHEME OF AS	SESSMEN	JT							
S. No.	Meth	od of Assessment	E	Description of Ass	sessment	Maximu Marks	n		Res	sourc	es Re	quired		External / Internal
1		boratory test by observation	Reyno	nt will be asked to Ids number and m iven pipe.		10		Obser				eck-list rubrics		External
			ADDI	FIONAL INSTR	UCTIONS FOR	THE HO	D/ FA	CUL	ΓY (IF	ANY)			
					Part of Practic	cal Exam								

COURSE NAME CO Description LO Description S. No. L	nSolve numerical pnCalculate major losLearning Contentlate major losses in flow using Darcy's	& Hydraulic Machinery Soroblems based on minor, Soroblems based on minor, Solution of the solution of the	cy's equation and C SCHEME OF Description of	Chezy's equ F STUDY	and imj	pact of j	4 et.	0	2	3	2	
NAME CO Description LO Description S. No. L 1 Calcul pipe equati	nSolve numerical pnCalculate major losLearning Contentlate major losses in flow using Darcy's	oroblems based on minor, sses in pipe flow using Daro Teaching –Learning Method	cy's equation and C SCHEME OF Description of	Chezy's equ F STUDY	juation.		et.				1	<u></u>
LO Description S. No. L 1 Calcul pipe equati	n Calculate major los Learning Content late major losses in flow using Darcy's	sses in pipe flow using Daro Teaching –Learning Method	cy's equation and C SCHEME OF Description of	Chezy's equ F STUDY	juation.		et.					
S. No. L 1 Calcul pipe equati	Learning Content late major losses in flow using Darcy's	Teaching –Learning Method	SCHEME OF Description of	F STUDY	-	•						
1 Calcu pipe equati	late major losses in flow using Darcy's	Method	Description of									
1 Calcu pipe equati	late major losses in flow using Darcy's	Method	-	fT-L T								
pipe equati	flow using Darcy's	Interactive classroom	Process		Feach Hrs.	Pract /Tut H		L	Rs Re	quired		Remarks
	•	teaching, demonstration, quiz, assignments, tutorial.	Students will lea processes throug discussion with teacher on c provided by to and random quiz by them.	gh the h the content teacher	6	00			text be	halk boar ook, char		
		(SCHEME OF AS	SESSMEN	NT							
S. No. Me	ethod of Assessment	Description of Ass	sessment	Maximu Marks			R	esourc	es Reo	quired		External / Internal
1	Theory exam	Student will be asked to major losses in flow for		10		Q	uest	ion pap	er + R	lating sca	le	External
		ADDITIONAL INST	RUCTIONS FOR	THE HO)D/ FA	CULTY	(IF	ANY)				
			Part of Theor	ry Exam								

RG	PV (Diplo	oma Wing) Bhopal	SCHEME FOR OUTCO		Bra	unch Co	ode	Co	urse	Code	CO Code	LO Code	Format No. 4
	-	-	00100	DNIE	R	0	1	4	0	2	3	3	
	URSE ME	Fluid Mechanics	& Hydraulic Machinery									·	
CO Des	scription	Solve numerical p	oroblems based on minor,	major losses in	pipe flow	v and ir	npact	t of jet.	•				
LO Des	cription	Calculate force exe	erted by a jet for a given van	ne/plate									
		1		SCHEME O	F STUDY	7							
S. No.	Lea	rning Content	Teaching –Learning Method	Description Proce		Teac Hrs		Pract. Fut Hi		LR	s Requir	ed	Remarks
1	Jet on plate, m plates a stationar velocity Simple r	diagram. numerical problems on fixed vertical,		Students will processes thr discussion w teacher on provided by te random quiz them.	ough the with the conten eacher and		00)	ł		its, PPT, text video filr		
			S	CHEME OF AS	SSESSM	ENT							
S. No.	Meth	od of Assessment	Description of Ass	sessment	Maxim Marl			R	esour	ces R	equired		External / Internal
1		Гheory Exam	Student will be asked to a exerted by a jet of wate vane/plate.		08			Questi	ion pa	aper + 2	Rating sc	ale	External
			ADDITIONAL INSTR			OD/ FA	CUL	TY (II	FAN	Y)			
				Part of Theo	ry Exam								

R	GPV (Dip	oloma Wing) Bhops	al	FOR LEARNI JTCOME				Code				Code	Code		Format No. 4
	URSE	Fluid Mechanics	& Hydraulic Machinery			R	0	1		4	0	2	4	1	
	cription	Select a suitable h	ydraulic turbine for a giv	ven situation.											
	cription		n, working and selection crite		el, Francis a	nd Ka	aplan	turbin	e.						
	A	1		SCHEME C			1								
S. No.	Lea	rning Content	Teaching –Learning Method	Description Proce		Tea Hi		Pra /Tu Hr	ut			LRs	Requir	ed	Remarks
1	turbines, turbine o discharge Construc principle Francis a Draft types,	ation of hydraulic Selection of on the basis of head, e and specific speed,	Interactive classroom teaching, demonstration, quiz, assignments, tutorial.	processes th	rough the with the content eacher and	15		00		P	PΤ,		, chalk t book, 1.		
	cuvitutio		S	CHEME OF A	SSESSME	NT									
S. No.	Meth	od of Assessment	Description of As	sessment	Maximu Marks				R	esou	rce	s Rec	quired		External / Internal
			Student will be asked to construction, working a criteria of a given turbin	nd selection ne.	10										
1		Theory exam	Student will be aske function, construction a a draft tube.	1	06			Qu	iesti	on p	ape	r + R	ating sc	ale	External
			ADDITIONAL INSTR	UCTIONS FO	R THE HO)D/ F	FACI	ULTY	/ (II	FAN	JY)				

			SCHEME FO	R LEARNING	r Brar	nch Cod	e Course	Code	СО	LO	
R	GPV (Dip	oloma Wing) Bhop	al	COME	R		1 4 0		Code 4	Code 2	Format No. 4
	URSE ME	Fluid Mechanics	& Hydraulic Machinery		K	0			7	2	
CO Des	scription	Select a suitable h	ydraulic turbine for a giv	en situation.							
LO Des	cription	Calculate work done	e, power, efficiency of a given	turbine.							
				SCHEME O	F STUDY						
S. No.	Lea	rning Content	Teaching –Learning Method	Description Proce		Teach Hrs.	Pract. /Tut Hrs.	I	LRs Requ	ired	Remarks
1	on we efficiency Reaction	numerical problems ork-done, Power, y of Impulse and turbines, Layout electric power plant.	Interactive classroom teaching, demonstration, quiz, assignments, tutorial.	processes th	rough the with the content eacher and	06	00	boar	louts, d, PPT, te s, video fi		
			SC	CHEME OF AS	SSESSMEN	T					
S. No.	Meth	od of Assessment	Description of Ass	essment	Maximur Marks	n	Resou	rces Re	quired		External / Internal
1]	Theory Exam	Student will be asked to work done, power, efficience turbine.		10		Question pa	aper + I	Rating sca	le	External
			ADDITIONAL INSTRU	JCTIONS FOR	R THE HOI	D/ FACI	JLTY (IF AN	Y)			·

R	GPV (Din	oloma Wing) Bhop	al		FOR LEARN	ING	Bra	nch C	ode	Cou	rse (Code	CO Code	LO Code	Format No. 4
	С- (2- р	······································		ot	JTCOME		R	0	1	4	0	2	4	3	
	URSE ME	Fluid Mechanics	& Hydra	ulic Machinery										1	
CO Des	cription	Select a suitable h	nydraulic	turbine for a gi	ven situation	•									
LO Des	cription	Identify componer	nts of a giv	ven turbine.											
		1			SCHEME	OF STUDY	Z								
S. No.	Lear	rning Content		ing –Learning Method	-	ion of T-L ocess		'each Hrs.		ract. t Hrs.		LR	s Requir	red	Remarks
1	_ _	ration of nts of Pelton wheel, nd Kaplan turbine.		ents.	demonstrat , procedure	of lab work. hts will learn actice.		00		09	bo cł		PPT, tex video	chalk t book, film,	
S. No.	Metho	od of Assessment	D	S Description of As		Maxim Marł	um			Reso	urce	s Req	uired		External / Internal
1		ooratory test by observation		nt will be asked to on and construction ubes.		10		Ob	servat				ck-list ubrics		External
			ADDIT	TIONAL INSTR	UCTIONS F	OR THE H	OD/	FACU	ULTY	(IF A	NY))			
					Part of Pra	actical Exam									

COURSE NAME Fluid Mechanics & Hydraulic Machinery R 0 1 4 0 2 5 1 CO Description Teaching - Learning Description Teaching - Learning Description of T-L Teaching - Learning Teaching - Learning Principle, construction, working and applications of centrifugal pump, Types of casings and impellers, Concept of multistage pump, Manometric head, Workdone, Castruction, and separation. SCHEME OF ASSESSMENT Image: Construction of Sip, Negative sip, Cavitation and separation. Scheme Of Assessment Maximum Markinum Marks Resources Required Extern Integer 1 Theory Exam Student will be asked to explain principle, construction, working, and uses of centrifugal pump. Student will be asked to explain principle, construction, working, and luses of centrifugal pump. 00 Handouts, chalk book, charts, video film. Image: Construction of the construction of the castruction of the castr	RGPV (Diploma Wing) Bhopal			I SCHEME FOR LEARNING			a Bran	Branch Code			se Co	ode	CO Code	LO Code	Format No. 4
NAME Plud Mechanies & Hydraulic Machinery CO Description Describe different Hydraulic pumps for a given situato. LO Description Explain Principle, construction, working and performance of centrifugal pump. S. No. Learning Content Teaching -Learning Method Description of T-L Process Teach Hrs. Pract. /Tut Hrs. LRs Required Ref 1 Principle, construction, working and applications of casings and impellers, Concept of multitage pump, Manometric head, Work- done, Manometric and Overall efficiency. Calculations of overall efficiency and power Interactive classrond (uz, assignments, tutorial. Student will learn the provided by teacher and random quiz taken by them. 00 Handouts, chalk board, PPT, text book, charts, video film. Bearding (uz, assignments, tutorial. efficiency calculations of overall efficiency and power required to drive pumps. Priming and its methods in centrifugal pump. Concept of Slip, Negative slip, Cavitation and separation. Description of Assessment Maximum Marks Resources Required Ext Int 1 Theory Exam Student will be asked to explain principle, construction, working, and uses of centrifugal pump. 10 Question paper + Rating scale Ext					OUTCOME			0	1 4		0	2	5	1	
LO Description Explain Principle, construction, working and performance of centrifugal pump. SCHEME OF STUDY S. No. Learning Content Teaching -Learning Method Description of T-L Process Teach Hrs. Pract. /Tut Hrs. LRs Required Res I Principle, construction, working and applications of casings and impellers, Conceptof multistage pump, Manometric head, Work- done, Manometric and Overall efficiency. Calculations of overall efficiency and power required to drive pumps. Priming and its methods in centrifugal pump. Concept of Slip. Negative slip, Cavitation and separation. Scheme OF ASSESSMENT Maximum Marks Resources Required Extent LRs Required 1 Theory Exam Student will be asked to explain principle, construction, working, and uses of centrifugal pump Student will be asked to explain principle, construction, working, and uses of centrifugal pump Io Question paper + Rating scale Extent Lex			Fluid Mechanics &	& Hydraulic	Machinery										
Scheme of Tuber 1 Scheme of STUDY S. No. Learning Content Teaching -Learning Method Description of T-L Process Teach Inst. Pract. (Tut Hrs. LRs Required Ret 1 Principle, construction, working and applications of casings and impellers, Concept of multistage pump, Manometric head, Work- done, Manometric and Overall efficiency. Calculations of overall efficiency and power required to drive pumps. Priming and its methods in centrifugal pump. Concept of Slip, Negative slip, Cavitation and separation. Scheme of Superior Assessment Scheme of Maximum Marks Resources Required Extd Interactive book, charts, video film. 1 Theory Exam Student will be asked to explain principle, construction, working, and uses of centrifugal pump Description of Assessment principle, construction, working, and uses of centrifugal pump Io Question paper + Rating scale Extd Ext 1 Theory Exam Student will be asked to explain principle, construction, working, and uses of centrifugal pump Io Question paper + Rating scale Ext	CO Des	cription	Describe different	hydraulic p	umps for a giver	n situation.									
S. No. Learning Content Teaching –Learning Method Description of T-L Process Teach Hrs. Pract. /Tut Hrs. LRs Required Ren 1 Principle, construction, working and applications of centrifugal pump, Types of casings and impellers, Concept of multistage pump, Manometric head, Work- done, Manometric and Overall efficiency. Calculations of overall efficiency and power required to drive pumps. Priming and its methods in centrifugal pump. Concept of Slip, Negative slip, Cavitation and separation. Description of Assessment Maximum Marks Maximum Marks Rend 1 Theory Exam Student will be asked to explain principle, construction, working, and uses of centrifugal pump Student will be asked to explain principle, construction, working, and uses of centrifugal pump Question paper + Rating scale Extu	LO Des	cription	Explain Principle, o	construction,	working and perf	formance of	centrifugal pum	ıp.							
S. No. Learning Content Method Process Hrs. /Tut Hrs. Lks kequired kequired ket 1 Principle, construction, working and applications of centrifugal pump, Types of casings and impellers, Concept of multistage pump, Manometric head, Work- done, Manometric and Overall efficiency. Calculations of overall efficiency and power required to drive pumps. Priming and its methods in centrifugal pump, Concept of Slip, Negative slip, Cavitation and separation. Interactive classroom quiz, assignments, tutorial. Students will learn the provided by teacher and random quiz taken by them. 09 00 Handouts, chalk book, charts, video film. Handouts, chalk book, charts, video film. Vertext book, charts, video film. Handouts, chalk book, charts, video film. Interactive classroom quiz, assignments, tutorial. Interactive classroom quiz, assignments, tutorial. Interactive classroom quiz, assignments, tutorial. Interactive classroom quiz, assignments, tutorial. Interactive classroom provided by teacher and random quiz taken by them. 09 00 Handouts, chalk book, charts, video film. Interactive film. Handouts, chalk book, charts, video film. Interactive film. Interactive film. Handouts, chalk book, charts, video film. Interactive film. Interactive film. Interactive film. Interactive film. Interactive film. Interactive film. Interactive film. Interactive film. Interactive film. Interactive f			1		S	CHEME O	F STUDY								
working and applications of centrifugal pump, Types of casings and impellers, Concept of multistage pump, Manometric head, Work- done, Manometric and Overall efficiency. Calculations of overall efficiency and power.teaching, demonstration, quiz, assignments, tutorial.processes through the discussion with the teacher on content provided by teacher and random quiz taken by them.board, PPT, text book, charts, video film.Voerall efficiency. Calculations of overall efficiency and power of Slip, Negative slip, Cavitation and separation.eschirgtion of AssessmentMaximum Markskesources RequiredExtend IntegrationS.No.Method of AssessmentDescription of AssessmentMaximum set of centrifugal pump.Resources RequiredExtend Integration1Theory ExamStudent will be asked to explain principle, construction, working, and uses of centrifugal pump.10Question paper + Rating scaleExt2EXDITIONAL INSTRUCTIONS FUTCHONS FUTCHAUTY (IF ANY)Ext10Question paper + Rating scaleExt	S. No. Learn		rning Content									L	Rs Requ	uired	Remarks
S. No. Method of Assessment Description of Assessment Maximum Marks Resources Required Extended Int 1 Theory Exam Student will be asked to explain principle, construction, working, and uses of centrifugal pump 10 Question paper + Rating scale Extended	1	working centrifug casings Concept of Manome done, Overall Calculati efficiency required Priming centrifug of Slip	ing and applications of bugal pump, Types of s and impellers, pt of multistage pump, netric head, Work- Manometric and ll efficiency. ations of overall ncy and power ed to drive pumps. ag and its methods in ugal pump. Concept lip, Negative slip,			processes discussion teacher provided b random q them.	through the with the on content by teacher and uiz taken by		00		t t	ooar oook	d, PP , charts	Γ, text	
S. No. Method of Assessment Description of Assessment Marks Resources Required Int 1 Theory Exam Student will be asked to explain principle, construction, working, and uses of centrifugal pump 10 Question paper + Rating scale Ext ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)		1			SCH	EME OF A									
1 Theory Exam principle, construction, working, and uses of centrifugal pump 10 Question paper + Rating scale Ext ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY) ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY) Ext	S. No.	Metho	od of Assessment	Desci	ription of Assess	ment		Resource				Req	uired	External / Internal	
	1	Т	heory Exam	principle,	construction, wo	-	10		Question pape				ting scal	External	
				ADDITIO	NAL INSTRUC	TIONS FO	R THE HOD/ I	FACUL'	TY (IF	FAN	Y)				1
Part of Theory Exam						Part of Theo	ory Exam								

	GPV (Dip	loma Wing) Bhop	al	SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code	LO Code	Format No. 4
		1		001			R	0	1	4	0	2	5	2	
COUI NAN		Fluid Mechanics	& Hydra	aulic Machinery											
CO Desc	cription	Describe differen	t hydrau	lic pumps for a g	iven situation	•									
LO Desc	cription	Explain Principle, c	onstructi	on, working and use	es of reciprocation	ng pump.									
					SCHEME OI	F STUDY	Z								
S. No. Learning Content			Teacl	ning –Learning Method	Description Proce				Pract. /Tut Hrs.			LRs Require			Remarks
	Principle, construction, working and uses of single and double acting reciprocating pumps.			ive classroom g, demonstration, signments, SCI	Students wi the p through discussion w teacher on provided by and random taken by ther HEME OF AS	rocesses the with the content teacher quiz n.			00		P	Handouts, chalk board PPT, text book, charts video film.			
S. No.	Metho	od of Assessment	Ι	Description of Ass		Maxir Mar	num			R	esour	ces Ro	equired		External / Internal
1	Pa	aper pen test	princi	nt will be asked ple, construction, f reciprocating pu	working, and	10)	Questio				per +	Internal		
			ADDIT	IONAL INSTRU	CTIONS FOR	R THE H	OD/ I	FAC	ULTY	Z (IF	ANY	<i>Z</i>)			,
					Part of Terr	n Work									

RGPV (Diploma Wing) Bhop			al SCHEME FOR LEARNING			J	Branch Code			Course Code			CO Code	LO Code	Format No. 4
		8 / 1	an OUTCOME				R	0	1	4			3	_	
	JRSE ME	Fluid Mechanics	& Hydra	ulic Machinery		I							1		1
			nt hydraulic pumps for a given situation.												
LO Des	cription	Measure overall ef	fficiency of	of centrifugal pun	np										
			-		SCHEME OF	STUDY	7								
S. No.	Lear	rning Content	Teaching –Learning Method		Description of T-L Process		Teach Hrs.		/T	ract. Fut Irs.		LRs Required		ed	Remarks
1	Experimental determination of overall efficiency of a centrifugal pump.		Lab hands o assignme assignme	· 1 ·	Teacher demonstrate procedure of la The students w through practic	ill learn			06		bo bo				
	1			SC	CHEME OF AS	SESSMI	ENT								
S. No.	No.Method of AssessmentDescription of AssessmentMaximum MarksResources Required										External / Internal				
1		ooratory test by observation	overall	t will be asked to efficiency of a co using a given exp	entrifugal	10	Obs					eck-list ubrics	Internal		
			ADDIT	ONAL INSTRU	JCTIONS FOR	THE H	OD/	FACU	JLTY	(IF A	ANY))			
					Part of Lab	Work									