RGPV (DI B	PLOMA HOPAL	WING)		CULUM FOR THE DURSE	FORMA	T-3	Sheet No. 1/3						
Branch		Ceme	nt Technology		Semester	]	(V						
Course Co	de	402	Course Name	Fluid Mechanics	& Hydrauli	c Machi	inery						
Course Out	tcome 1		ss fluids, propertie urements.	es of fluid , pressure a	and its	Teach Hrs	Marks						
Learning O	<b>Outcome</b> 1	Comp		fluids on the tries/characteristics.	basis	06	10						
Contents		Incom viscou Specia	Definition of fluid, Types of fluid- Ideal and Real fluids, Compressible and Incompressible fluids, Newtonian and non-Newtonian fluid, viscous and non viscous fluids, rotational and ir-rotational fluids, fluid properties- Density Specific weight, Specific gravity, Specific volume, Vapour pressure, surface tension, capillarity, Dynamic and kinematic viscosity.										
Method of	Assessme	nt Paper	pen test (Part of Pr	ogressive Test – I)									
Learning O	Outcome 2	Measu	Measure pressure using simple and 10 10										
Contents		pressu	ire, gauge pressure, l's law, manomete	<b>rement:</b> Fluid pressu vacuum pressure, abs ers- principle, its typ	olute pressur	e, pressi	ure head,						
Method of	Assessme	nt Labor	atory Test by Obser	rvation (Part of LW)									
Learning O	Outcome 3	Solve	Solve simple numerical problems based on Pascal's law.0506										
Contents			erical problems base meters for pressure	ed on Pascal's law, Sin measurement.	ple and Diff	erential							
Method of	Assessme	nt Theor	ry exam										
Course Out	tcome 2	Meas Pitot-	0	g Venturimeter, Orif	ice-meter,	Teach Hrs	Marks						
Learning O	<b>)utcome</b> 1	Comp	oare different rties/characteristics		ed on	04	10						
Contents		Basic	<b>Basics of Fluid Flow:-</b> potential energy, kinetic energy, pressure energy, total energy, Types of fluid flow- Laminar, turbulent and transient, Steady and Unsteady, Uniform and non-uniform.										
		total e	energy, Types of flu	id flow- Laminar, turb	•••								
Method of	Assessme	total e and U	energy, Types of flu	id flow- Laminar, turb nd non-uniform.	•••								
		total e and U nt Paper	energy, Types of flu Insteady, Uniform a pen test (Part of pro Bernoulli's theorem a	id flow- Laminar, turb nd non-uniform.	oulent and trai	nsient, S							
Method of		total e and U nt Paper Use B situati	energy, Types of flu insteady, Uniform a pen test (Part of pro- pernoulli's theorem a ion.	id flow- Laminar, turb nd non-uniform. ogressive – II)	n for a given	nsient, S	teady 10						
Method of A	Outcome 2	total e and U nt Paper Use B situati Contin practi	energy, Types of flu Insteady, Uniform a pen test (Part of pro- Bernoulli's theorem a ion. nuity equation, Be	id flow- Laminar, turb nd non-uniform. ogressive – II) and Continuity equatio	n for a given	nsient, S	teady 10						

Contents	Venturimeter- Principle, Construction and working, dis Venturimeter, Vena contracta, Orifice- meter- Principle, C working, discharge through Orifice- meter, Pitot-tul Construction and working, hydraulic coefficients-Cc, Cv and Simple numerical problem based on Continuity equation an Bernoulli's equation.	Construc be - P l Cd	tion and rinciple,
Method of Assessment	Laboratory test by observation (Part of Practical Exam)		
Course Outcome 3	Solve numerical problems based on minor, major losses	Teach	Marks
	in pipes and impact of jet.	Hrs	
Learning Outcome 1	Measure Reynold's number and minor losses in pipes.	11	10
Contents	<b>Flow Through Pipes</b> : Laminar, turbulent and transient number, differentiation of laminar, turbulent and transient flo Reynold's number, minor losses in pipes.		•
Method of Assessment	Laboratory test by observation (Part of Practical Exam)		
Learning Outcome 2	Calculate major losses in pipe flow using Darcy's equation and Chezy's equation.	06	10
Contents	Calculate major losses in pipe flow using Darcy's equation ar equation.	nd Chez	y's
Method of Assessment	Theory exam		
Learning Outcome 3	Calculate force exerted by a jet for a given vane/plate.	06	8
Contents	<b>Impact of Jets:</b> Impact of Jet on fixed vertical flat plate, more plates and curved plates stationary and moving, velocity diag Simple numerical problems based on fixed vertical, moving p	gram.	tical flat
Method of Assessment	Theory exam		
Course Outcome 4	Select a suitable hydraulic turbine for a given situation.	Teach Hrs	Marks
Learning Outcome 1	Explain Construction, working and selection criteria of Pelton wheel, Francis and Kaplan turbine.	15	16
Contents	<b>Hydraulic Turbines:</b> Classification of hydraulic turbine turbine on the basis of head, discharge and specific spee working principle of Pelton wheel, Francis and Kaplan turbin function, types, and construction, Cavitation in turbines	d, Cons	truction,
Method of Assessment	Theory exam		
Learning Outcome 2	Calculate Work done, Power, efficiency of the given turbine.	06	10
Contents	Simple numerical problems on work done, Power, efficie Layout of hydroelectric power plant.	ency of	turbines,
Method of Assessment	Theory exam		
Learning Outcome 3	Identify components of a given turbine.	09	10
Contents	Demonstration of components of Pelton wheel, Francis and H	7 1	1.1

Method of Assessment	Laboratory test by observation(Part of Practical Exam)							
Course Outcome 5		Teach Hrs	Marks					
Learning Outcome 1	Explain construction, Principle, Working and Application of centrifugal pump.	09	10					
Contents	Principle, Working and Application of centrifugal pump, Type impeller, Concept of multistage pump, Manometric head, wor Manometric and Overall efficiency. Calculations of overall ef power required to drive pumps. Priming and its methods in ce Concept of Slip, Negative slip, Cavitation and separation.	kdone, ficiency	and					
Method of Assessment	Laboratory test (Part of Practical Exam)							
Learning Outcome 2	Explain construction, Principle, Working and Application of reciprocating pump.	06	10					
Contents	Construction, Principle, Working and Application of single an reciprocating pump.	d double	e acting					
Method of Assessment	Paper pen test (Part of TW)							
Learning Outcome 3	Measure overall efficiency of centrifugal pump.	06	10					
Contents	Experimental determination of overall efficiency of centrifug	al pump.						
Method of Assessment	nt Laboratory test by observation(Part of LW)							

RG	PV (Diplo	ma Wing ) Bhopal	SCHEME FOR		Br	anch Co	ode	Cou	urse C	ode	CO Code	LO Code	Format No. 4
	- · ( <b>P</b> -0)		OUTC	OME	С	0	1	4	0	2	1	1	
COURS	ENAME	Fluid Mechanics & H	Iydraulic Machinery			I I						1	
CO Dese	cription	Discuss fluids, prope	rties of fluid, pressure	and its measuren	nents.								
LO Deso	cription	Compare different flu	ids on the basis of the	ir properties/char	acterist	ics.							
				SCHEME O	F STU	DY							
S. No.	L	earning Content	Teaching – Learning Method	Description of Process	T-L	Teach Hrs.	Pract. / Hrs.		Ι	LRs Re	quired		Remarks
1	fluid- Ide Compres Incompre Newtoni fluid, vis fluids, rotationa propertie weight, Specific pressure, capillarit	essible fluids, an and non-Newtonia scous and non- viscou rotational and in l fluids, flui s- Density, Specifi Specific gravity volume, Vapou surface tension	classroom teaching, demonstration, n quiz, s assignments, tutorial. d c y, r	Students will the proo through discussion wit teacher on co provided by te and random taken by them.	the the the the the the the the	06	00		boar book		chal PT, tex s, graphs	t	
				SCHEME OF A	SSESS	MENT	-						
S. No.	Metho	od of Assessment	Description of A	ssessment		arks		J	Resour	ces Re	quired		External / Internal
1	properties.			*		10		Tes	st pape	r + Rat	ing scale		Internal
		Ĩ	ADDITIONAL INSTR	UCTIONS FOR	THE H	OD/ FA	CULTY (	IF A	NY)				
					Part of	progress	sive I						

RG	RGPV (Diploma Wing ) Bhopal	ma Wing ) Bhonal	SCHEME FOR		Br	anch Co	ode C	ourse (	Code	CO Code	LO Code	Format No. 4
10		ing (fing) znopu	OUTC	OME	С	0	1 4	0	2	1	2	
COURS	SE NAME	Fluid Mechanics &	Hydraulic Machinery			II	I					1
CO Des	cription	Discuss fluids, pro	perties of fluid, pressure	and its measuren	nents.							
LO Des	cription	Measure pressure	using simple and different	tial manometers.								
				SCHEME C	F STU	DY						
S. No.	Lear	ming Content	Teaching –Learning Method	Description o Process		Teach Hrs.	Pract. /Tu Hrs.	t	LRs Re	quired		Remarks
1	PressureandItsLabdemonstration, demonstration,TeacherMeasurement:Fluidhands on practice, labdemonstrationpressureand itsunits, assignment,assignment, quiz, assignments.procedureatmosphericpressure, vacuumassignments.lab v students with			demonstrate procedure lab wor students will through	of k. The learn	04	06	boar char	ts, vi	chal , text bool deo filn models.	ς,	
			S	SCHEME OF A	SSESS	MENT						
S. No.	Metho	od of Assessment	Description of As	ssessment		kimum larks		Resou	rces Re	quired		External / Internal
1	observation differential manometers.				10		Observat /rating sc			neck-list		Internal
			ADDITIONAL INSTR	UCTIONS FOR	THE H	OD/ FA	CULTY (IF	ANY)				
				Part of L	ab Wor	k						

RG	RGPV (Diploma Wing ) Bhopal	SCHEME FOR		Br	anch C	ode	Co	urse C	ode	CO Code	LO Code	Format No. 4	
NO		ina ((ing ) bhopai	OUTC	COME	С	0	1	4	0	2	1	3	
COURS	E NAME	Fluid Mechanics &	Hydraulic Machinery			11		I	1			.1	
CO Dese	cription	Discuss fluids, pro	operties of fluid, pressure	and its measuren	nents.								
LO Desc	cription	Solve numerical p	oroblems based on Pascal	's law.									
				SCHEME O	F STU	DY							
S. No.	Lear	rning Content	Teaching –Learning Method	Description of Process	T-L	Teach Hrs.	P	ract. /Tut Hrs.	I	LRs Re	quired		Remarks
1	Numerical problems based on Pascal's law, Simple and manometers for pressure measurement.Interactive classroom teaching, assignments, tutorial.Students w the p through discussion provided by and rando		1	the the the the the the the the the	05		00	boar book	douts, d, Pl c, chart o film.	chall PT, tex s, graphs	t		
				SCHEME OF A	SSESS	MENT							
S. No.	Metho	od of Assessment	Description of A	ssessment		kimum larks			Resour	ces Re	quired		External / Internal
1	1Theory examStudent will be asked to c pressure using Pascal's la given problem.				06	Question paper + Rating scale			scale		External		
	1		ADDITIONAL INSTR	UCTIONS FOR	THE H	OD/ FA	CUL	LTY (IF A	NY)				1
				Part of Theo	orv Exa	m							

RG	PV (Diplo	ma Wing ) Bhopal	SCHEN	ME FOR LEARNI	ING	Br	anch C	Code	C	ourse C	ode	CO Code	LO Code	Format No. 4
	- · ( <b>P</b> -0			OUTCOME		С	0	1	4	0	2	2	1	1 01 mat 1 (0.
COURS	SE NAME	Fluid Mechanics &	Hydraulic Mach	inery									-	1
CO Des	cription	Measure discharge	using Venturime	ter, Orifice-meter,	Pitot-tu	be.								
LO Dese	cription	Compare different f	luid flow based of	on properties/chara	cteristic	cs.								
				SCHE	ME OF	F STU	DY							
S. No.		Learning Conter	nt	Teaching – Learning Method	Descri I	ption of Process		Teac	h Hrs.	Pract /Tut Hrs.		LRs Req	uired	Remarks
1	Basics of Fluid Flow:- potential energy, kinetic energy, pressure energy, total energy, Types of fluid flow- Laminar, turbulent and transient, Steady and Unsteady, Uniform and non-uniformIn cla tead de qu as			classroom teaching, demonstration, quiz, assignments, tutorial.	Student the through discussi teacher provide and ra taken by	pro ion wi on c d by t andom	the the the the the the the the the the	04		00	bo	ndouts, ard, PPT, ok, video		
	1			SCHEME	OF AS	SESS	MENT	-						1
S. No.	Metho	d of Assessment	Descript	ion of Assessment			timum arks			Resour	ces Re	quired		External / Internal
1	1       Paper pen test       Student will be asked to compare g         1       Paper pen test       fluid flows based on given properties/characteristics.				re given 10				Que	Question paper + Rating scale				Internal
			ADDITIONAL	INSTRUCTIONS	FOR T	HE HO	DD/ FA	CULT	Y (IF /	ANY)				
				Part of	Progree	ssive T	est – II							

RG	RGPV (Diploma Wing ) Bhopal	ma Wing ) Bhopal		R LEARNING	Br	anch Co	ode	Co	urse C	ode	CO Code	LO Code	Format No. 4
	- · ( <b>F</b>	<b>FF</b>	OUT	COME	С	0	1	4	0	2	2	2	
COURS	E NAME	Fluid Mechanics &	Hydraulic Machinery			II			1				1
CO Dese			using Venturimeter, Or	ifice-meter, Pitot-t	ube.								
LO Desc	cription	Apply Bernoulli's th	eorem and Continuity	equation for a give	n situat	ion.							
	_			SCHEME O	F STU	DY							
S. No.	I	Learning Content	Teaching – Learning Method	Description or Process		Teach Hrs.	Pract. Hr			LRs	Required		Remarks
1	Me Continuity equation, Bernoulli's Interact theorem:- Assumptions, Equation and its applications.		alli's Interactive ation classroom teaching, demonstration,	the pro- through discussion with teacher on co- provided by teacher and random	1		00		Handouts, chalk board PPT, text book, charts video film.				
				SCHEME OF A	SSESS	MENT							
S. No.	Metho	od of Assessment	Description of	Assessment		kimum larks		]	Resour	ces Re	quired		External / Internal
1	Theory examStudent will be asked to apply Bernoulli's theorem and Conti equation for a given situation.					10		Ques	tion pa	per + F	Rating sca	ale	External
	1		ADDITIONAL INST	RUCTIONS FOR	THE H	OD/ FAC	CULTY	(IF A	NY)				,
				Part of The	ory Exa	ım							

RG	PV (Diplo	ma Wing ) Bhopal		R LEARNING	Bı	ranch Co	ode	Co	Course Code		CO Code	LO Code	Format No. 4
	- · ( <b>p</b> - •		OUT	COME	С	0	1	4	0	2	2	3	I of mat 100.
COURS	ENAME	Fluid Mechanics &	Hydraulic Machinery			II			1		1		
CO Des	cription	Measure discharge	using Venturimeter, Or	rifice-meter, Pitot-	tube.								
LO Dese	cription	Measure discharge	using Venturimeter, Or	rifice-meter, Pitot-	tube.								
				SCHEME O	F STU	DY							
S. No.	I	Learning Content eter- Princ	Teaching – Learning Method	Description of Process		Teach Hrs.	H	et. /Tut Irs.			Required		Remarks
1	Construct discharge Venturime Orifice- Construct discharge Pitot-tube and	ion and worl through eter,Venacontracta, meter- Princ	king, demonstration, hands on practice, lab iple, assignment, king, quiz, eter, assignments.	Teacherwill demonstrate0609Handouts, chalk board, PPT, text book, charts, video film, virtual lab, models.IabThe students will learn through practice.Image: Comparison of the student is a student in the student in the student is a student in the student in the student is a student in the student in the student in the student is a student in the student in the student in the student is a student in the student in the student in the student is a student in the student in the student in the student in the student is a student in the stude									
			I	SCHEME OF A	SSESS	MENT							
S. No.	Metho	od of Assessment	Description of A	Assessment		kimum larks			Resour	ces Re	quired		External / Internal
1		ooratory test by observation	Student will be asked discharge in a pipe us instrument.			10	Obse			ule/che scales /			External
			ADDITIONAL INST	RUCTIONS FOR	THE H	OD/ FA	CULTY	Y (IF A	NY)				

RG	RGPV (Diploma Wing ) Bhopal	SCHEME FOR		B	ranch Co	de Co	ourse C	code	CO Code	LO Code	Format No. 4	
		ing (ting) znopu	OUTC	COME	С	0	1 4	0	2	3	1	
COURS	SE NAME	Fluid Mechanics	& Hydraulic Machinery			1 1				1		
CO Des	cription	Solve numerical p	roblems based on minor,	major losses in p	ipes an	d impact	of jet.					
LO Dese	cription	Measure Reynold	s number and minor losse	es in pipes.								
	I			SCHEME O	F STU	DY						
S. No.	Lear	ning Content	Teaching –Learning Method	Description of Process	fT-L	Teach Hrs.	Pract. /Tut Hrs.	]	LRs Re	quired		Remarks
1	Laminar, transient number, laminar, transient	Through Pipes: turbulent and flow, Reynolds differentiation of turbulent and flow on the basis ds number, minor pipes.	Lab demonstration, hands on practice, lab assignment, quiz, assignments.	Teacher demonstrate procedure of work. The stu will learn th practice.		02	09	PPT,	text bo film,	halk boar ook, chart virtual la	s,	
				SCHEME OF A	SSESS	SMENT						
S. No.	Metho	d of Assessment	Description of A	ssessment		ximum Iarks		Resou	rces Re	quired		External / Internal
1		oratory test by observation	Student will be asked to Reynolds number and for a given pipe.			10	Observation schedule/check-list /rating scales /rubrics					External
			ADDITIONAL INSTR	UCTIONS FOR	THE H	IOD/ FAC	CULTY (IF A	NY)				
				Part of Prac	tical Ex	am						

RG	PV (Diplo	ma Wing ) Bhopal	SCHEME FOR		Br	anch C	ode	Со	urse C	ode	CO Code	LO Code	Format No. 4
	- · (	······································	OUTCO	OME	С	0	1	4	0	2	3	2	
COURS	SE NAME	Fluid Mechanics & H	Iydraulic Machinery			11	I		1	1			
CO Des	cription	Solve numerical prob	lems based on minor, m	ajor losses in pij	pe flow	and imp	act of je	et.					
LO Des	cription	Calculate major losse	s in pipe flow using Da	rcy's equation an	d Chez	y's equa	ion.						
				SCHEME O	F STU	DY							
S. No.	Le	arning Content	Teaching –Learning Method	Description of Process	f T-L	Teach Hrs.		t. /Tut frs.		LRs	Required		Remarks
1	Calculate major losses in pip				cesses the th the ontent eacher	06	00	00		outs, text film.	chalk book,	board, charts,	
	1		S	SCHEME OF A	SSESS	MENT			1			I	
S. No.	Metho	od of Assessment	Description of As	ssessment		kimum arks			Resour	ces Re	quired		External / Internal
1	1Theory examStudent will be asked to calculate major losses in flow for a given p					10		Ques	stion pa	iper + 1	rating sca	le	External
			ADDITIONAL INSTRU	UCTIONS FOR	THE H	OD/ FA	CULTY	(IF A	NY)				
				Part of Theo	ory Exa	m							

RG	PV (Dinlo	ma Wing ) Bhopal	SCHEME FOR		Br	anch Co	ode	Co	urse C	ode	CO Code	LO Code	Format No. 4
RO		ina ((ing ) Diopai	OUTC	OME	С	0	1	4	0	2	3	3	
COURS	E NAME	Fluid Mechanics & H	ydraulic Machinery			11			1	.1			
CO Des	cription	Solve numerical prob	lems based on minor, m	najor losses in pir	be flow	and imp	act of je	et.					
LO Dese	cription	Calculate force exerte	d by a jet for a given va	ane/plate									
				SCHEME O	F STU	DY							
S. No.	Le	arning Content	Teaching –Learning Method	Description of Process	T-L	Teach Hrs.	Pract H	. /Tut rs.		LRs	Required		Remarks
1	fixed vert vertical fl plates sta velocity d Simple	of Jets: Impact of Jet on ertical flat plate, moving flat plates and curved stationary and moving, v diagram. numerical problems n fixed vertical, movingInteractive classroom teaching, demonstration, quiz, assignments, tutorial.Students will learn the processes through the discussion with the discussion with the teacher on content provided by teacher and random quiz taken by them.0600			Hand PPT, video	text		board, charts,					
			Ś	SCHEME OF A	SSESS	MENT							
S. No.	Metho	od of Assessment	Description of A	ssessment		kimum arks			Resou	ces Re	quired		External / Internal
1	Theory exam Theory exam Student will be asked to calculate force exerted by a jet of water for a given vane/plate. 08 Question paper + Rating scale					External							
			ADDITIONAL INSTRU	UCTIONS FOR	ГНЕ Н	OD/ FA	CULTY	(IF A	NY)				
				Part of Theo	ory Exa	m							

RGPV (Diploma Wing ) Bhopal		oma Wing ) Rhonal	SCHEME FOR LEARNING		Branch Code			Course Code			CO Code	LO Code	Format No. 4
RO		, ind ((ing) Diopar	OUTC	OME	С	0	1	4	0	2	4	1	
COURS	SE NAME	Fluid Mechanics &	Hydraulic Machinery										
CO Des	cription	Select a suitable hy	draulic turbine for a give	n situation.									
LO Des	cription	Explain Constructi	on, working and selection	criteria of Peltor	n wheel,	Fran	cis and Ka	plan	turbine.				
				SCHEME O	F STU	DY							
S. No.			Teaching –Learning Method	Description of T	[-L Process T		Teach Hrs	. Pract. /Tut Hrs.		I	Rs Requ	iired	Remarks
1	<ul> <li>Hydraulic Turbines:,, Classification of hydraulic turbines, Selection of turbine on the basis of head, discharge and specific speed,</li> <li>Construction, working principle of Pelton wheel, Francis and Kaplan turbine. Draft tubes- function, types, and construction, cavitation in turbines</li> </ul>		Interactive classroom teaching, demonstration, quiz, assignments, tutorial.	processes through the			15						
	1			SCHEME OF A	SSESS	MEN	T					I	
S. No.	Meth	od of Assessment	Description of Assessment			imun arks	Resourc			ces Re	quired	External / Internal	
1		Гheory exam	Student will be asked to construction, working criteria of a given turb Student will be asked to function, construction a draft tube.	10		Question pap			iper + I	Rating sca	External		
			ADDITIONAL INSTR	UCTIONS FOR	THE H	DD/ F	FACULTY	(IF A	ANY)				
				Part of The	orv Eva				,				
				Part of Theo	ory Exa	n							

RGPV (Diploma Wing ) Bhopal			SCHEME FOR LEARNING		Branch Code			<b>Course Code</b>			LO Code	Format No. 4		
RO		ina ((ing) Diopai	OUTC	COME	С	0	1	4	0	2	4	2		
COURS	E NAME	Fluid Mechanics &	z Hydraulic Machinery			1 1		1				1	1	
CO Dese	cription	Select a suitable h	ydraulic turbine for a giv	en situation.										
LO Deso	cription	Calculate Work do	one, Power, efficiency of	the given turbine										
				SCHEME O	F STU	DY								
S. No.	Learning Content		Teaching –Learning Method	Description of Process	T-L	Teach Hrs.		ct. /Tut Hrs.	I	LRs Re	quired		Remarks	
1	Simple numerical problems on work done, Power, efficiency of turbines, Layout of hydroelectric power plant.		Interactive classroom teaching, demonstration, quiz, assignments, tutorial.	Students will the proo through discussion wit teacher on co provided by te and random taken by them.	the the the the the the the the the	06		00		ts,	chalk , text boo video virtual la			
	1			SCHEME OF A	SSESS	MENT			1					
S. No.	Metho	d of Assessment	Description of A	ssessment	Maximum Marks				Resour	ces Re	quired	External / Internal		
1	Т	heory exam		Student will be asked to calculate work done, power, efficiency of a given turbine.		10		Question paper + Rating sca					External	
	1		ADDITIONAL INSTR	UCTIONS FOR	THE H	OD/ FA	CULT	Y (IF A	NY)				1	
				Part of The	ory Exa	am								

COURSE CO Descr		ma Wing ) Bhopal		SCHEME FOR LEARNING		Branch Code			Course Code			LO Code	Format No. 4	
	ENAME		0010	OME	С	0	1	4	0	2	4	3		
CO Descr		Fluid Mechanics &	k Hydraulic Machinery			II		1			-	1	1	
	ription	Select a suitable h	ydraulic turbine for a give	en situation.										
LO Descr	ription	Identify componer	nts of a given turbine.											
				SCHEME O	F STU	DY								
S. No.	Learning Content		Teaching –Learning Method	Description of Process	T-L	-L Teach Hrs.		ct. /Tut Hrs.		LRs Re	quired		Remarks	
		ration of nts of Pelton ancis and Kaplan	Lab demonstration, hands on practice, lab assignment, quiz, assignments.	Teacher w demonstrate f procedure of work. The stude will learn throu practice.		00	09			ts,	chalk text bool video virtual lal			
				SCHEME OF A	SSESS	MENT								
S. No.	Metho	d of Assessment	Description of A	ssessment		kimum arks		Resources Required					External / Internal	
1		ooratory test by observation	Student will be asked function and construc draft tubes.			10	Observation schedule/chec /rating scales /ru				External			
I			ADDITIONAL INSTR	UCTIONS FOR	THE H	OD/ FA	CULT	Y (IF A	NY)				1	
				Part of Pract	ical Ex	am								

RGPV (Diploma Wing ) Bhopal		SCHEME FOR LEARNING			Branch Code			urse C	ode	CO Code	LO Code	Format No. 4		
	- · ( <b>- ·P</b> -0		OUTC	OME	С	0	1	4	0	2	5	1		
COURS	E NAME	Some corrections hav	e been done in this. Sir	, Please upload n	ew for	nat 6.	I		1	1			1	
CO Desc	cription	Describe different h	ydraulic pumps for a gi	ven situation.										
LO Desc	ription	Explain Principle, co	onstruction, working an	nd performance of	f centri	fugal pu	mp.							
				SCHEME O	F STU	DY								
S. No.	Lea	arning Content	Teaching –Learning Method	Description of Process	fT-L	Teach Hrs.	Pract. Hrs		t LRs Required				Remarks	
1	centrifug casings a Concept Manome Workdon Overall Calculat efficience required Priming centrifug Slip,	and applications of gal pump, Types of and impellers, of multistage pump, etric head, ne, Manometric and efficiency. ions of overall	Interactive classroom teaching, demonstration, quiz, assignments, tutorial.	Students will the proo through discussion wit teacher on co provided by te and random taken by them.	the the the the the the the the the the	09	00		Han boar book film	k, cha	k xt o			
		-		SCHEME OF A	SSESS	MENT	I							
S. No.	Metho	od of Assessment	Description of A	ssessment		kimum larks		]	Resour	ces Re	quired		External / Internal	
1	Т	heory Exam	Student will be asked to explain principle, construction, working, and uses of centrifugal pump		10			Question paper + Rating sca					External	
			ADDITIONAL INSTR	UCTIONS FOR	THE H	OD/ FA	CULTY	(IF A	NY)				·	
				Part of The	orv Exa	ım								

RGPV (Diploma Wing ) Bhopal		SCHEME FOR	Branch Code			<b>Course Code</b>				LO Code	Format No. 4			
	- ( ( <b> P</b> -0)		OUTC	OME	С	0	1 4	1	0	2	5	2		
COURS	E NAME	Fluid Mechanics a	& Hydraulic Machinery		I	II	I			1		1		
CO Dese	cription	Describe different	hydraulic pumps for a gi	ven situation.										
LO Desc	cription	Measure overall e	fficiency of centrifugal p	ımp										
				SCHEME O	F STU	DY								
S. No.	Lear	ming Content	Teaching –Learning Method	Description of Process	f T-L	Teach Hrs.	Pract. /] Hrs.	Гut	t LRs Required				Remarks	
1	Experimental determination of overall efficiency of a centrifugal pump.		Lab demonstration, hands on practice, lab assignment, quiz, assignments.	Teacher demonstrate procedure of work. The stu will learn th practice.	idents	00	06		boar book	,	chal PT, tex rts, vide l lab.	xt 🛛		
				SCHEME OF A	SSESS	MENT								
S. No.	Metho	od of Assessment	Description of A	ssessment		kimum arks		]		External / Internal				
1		ooratory test by observation	overall efficiency of a	Student will be asked to measure overall efficiency of a centrifugal pump using a given experimental setup			Observ	atio /1		Internal				
			ADDITIONAL INSTR	UCTIONS FOR	THE H	OD/ FA	CULTY (I	FA	NY)					
				Part of I	Lab Wo	rk								

RGPV (Diploma Wing ) Bhopal			SCHEME FOR LEARNING OUTCOME			ode	Course Code			CO Code	LO Code	- Format No. 4			
	- · ( <b>r</b>	<b>F</b>	OUTO	С	0	1	4	0	2	5	3				
COURS	SE NAME	STRENGTH OF M	IATERIALS			II			1	1		1	1		
CO Des	cription	Calculate design pa	arameters of circular shafts and springs												
LO Dese	cription	Calculate design pa	arameters of a given sprin	ng.											
				SCHEME O	F STU	DY									
S. No. Learning Content		Teaching –Learning Method	Description of Process	T-L	Teach Hrs.	Pract. Hrs		I	LRs Re	quired		Remarks			
1	strength a and l Numerica closed co find safe	Il Problems o comparison of and weight of solid hollow shafts. Il problems on il helical spring to load, deflection, bil and number of	Interactive classroom teaching, demonstration, quiz, assignments, tutorial	Teacher will exp the contents and provide handout students. Teacher conduct assignm quiz/tutorial to r students practice knowledge.	explain 8 and douts to acher will gnments/ to make		0		PPT,	,	halk boar ok, chart	· · ·			
	1			SCHEME OF A	SSESS	MENT			1						
S. No.	Metho	od of Assessment	Description of A	accompant		Maximum Marks		Resources Re			quired		External / Internal		
1	Т	Theory exam Student will be asked to calcul design parameters a given spri				10		Te	st pape	r + Rat	ing scale		External		
	1		ADDITIONAL INST	RUCTIONS FOR	THE H	OD/ FA	CULTY	(IF A	NY)						
				NII											