RGPV (D	OIPLO BHO		ING)		CULUM FOR THE DURSE	FORMA	T-3	Sheet No. 1/2							
Branch			Cem	ent Technology (C	201)	Semester		V							
Course Co	ode	50	1	Course Name	Unit (Operation - 1	Ι								
Course Ou	itcon	ne 1	Studer plant.	nt will be able to ex	plain the kiln operatio	n in cement	Teach Hrs	Marks							
Learning (Outco	ome 1	Studer	nt will be able to dr	aw a layout of kiln sec	tion.	08	10							
Contents			proces	s and dry process,	essing, brief descriptio advantages and disadva arting from VRM to co	antages of dr									
Method of	Asse	essment	Paper	pen test			-	-							
Learning (Outco	ome 2	Student will be able to describe the kilns and refractories. 10 10												
Contents			Types of Kilns (dry process), sizing of kiln, L/D ratio, inlet seal, raw meal preparation and different methods of feeding to kiln, effect of leakage on kiln operations, optimization of kiln output, factors affecting the kiln output. Refractories, types of refractories.												
Method of	Asse	essment	Theory	y exam			T								
Learning (Outco	ome 3	Student will be able to describe the preheaters and precalciner.0810												
Contents			Types of preheaters, two stage, four stage, six stage preheaters, their advantages and disadvantages, selection of preheaters, calciner, separate line calciner (SLC), in-line calciner (ILC), draw material and air flow diagram in kiln section with process parameters.												
Method of	Asse	essment	Theory	y exam											
Course Ou	itcon	ne 2		nt will be able to e heat recovery syste	explain the cooling of m.	clinker and	Teach Hrs	Marks							
Learning (Outco	ome 1	Student will be able to explain the cooling of clinker.0810												
Contents			Different types of cooler used their operation and control, grate coolers, C.F.G coolers, cooling efficiency, air requirements for cooling operation.												
Method of	Asse	essment	Theory	y exam											
Learning (Studer		explain the clinker con m.	veying and	08	10							
Contents			Hammer mills, drag chains, different methods of clinker cooling and their advantages, methods of clinker storage, silos, gantry, waste heat recovery system operation, advantages and disadvantages of WHRS.												
Method of			Quiz	(Term work)											
Course Ou	itcon	ne 3	Studer	udent will be able to describe the fuel management. Teach Hrs											

Learning Outcome 1	Student will be able to describe the firing system used in	08	10								
	cement plant.	00	10								
Contents	Firing system – different types of firing system used in ceme	nt plant.	indirect								
	firing, direct firing, their advantage and disadvantages, t										
	advantages of multichannel burner. Fuel mix (mixing differ										
	for desired NCV), usage of Pet-coke, alternative fuels.	• 1									
Method of Assessment	Theory exam										
Learning Outcome 2	Student will be able to prepare the fuel for kiln and	08	10								
_	precalciner.										
Contents	Fuel Preparation: sampling of coal, crushing, grinding and storage of										
	pulverized coal, residue and moisture determination an	d their	control,								
	conveying of pulverized coal to kiln and precalciner,	generat	ion and								
	utilization of waste gases, removal of fine coal from du	st- lader	n gases,								
	different equipment used, cyclones, bag filters and ESPs.										
Method of Assessment	Theory exam										
Course Outcome 4	Student will be able to calculate the heat balance and process	Teach	Marks								
	parameters of pyro processing.	Hrs									
Learning Outcome 1	Student will be able to calculate the heat balance of kiln.	08	10								
Contents	Thermal heat calculation, heat balance of kiln, air balance of		•								
	secondary and tertiary air, optimization of kiln output, fact		-								
	kiln output, calcinations and its control, process parameters		torque,								
velocity, temperature, draft at various stages, flame characteristics.											
Method of Assessment	Theory exam										
Learning Outcome 2	Student will be able to measure the process parameters of 08 10										
<u> </u>	pyro processing.	1 6	•								
Contents	Process parameters like kiln torque, velocity, temperature,										
	stages, flame characteristics, trouble shooting in kiln, cooler	and pren	eaters.								
Method of Assessment	Theory exam	T 1	N/ 1								
Course Outcome 5	Student will be able to describe the cement grinding,	Teach	Marks								
	packaging and dispatch.	Hrs	10								
Learning Outcome 1	Student will be able to draw a diagram of grinding circuit	08	10								
	and explain it.										
Contents	Types of mills, ball mill, V.R.M., roller press, and their wo	01	. .								
	optimization of grinding efficiency i.e. throughput (power co	-	,								
	and residue), selection of grinding media, its wear rate, control of specific-										
	surface and setting time, different types of weigh feeders, eq	uipments	s used to								
	convey cement to silo, storage of cement in silos.										
Method of Assessment	Theory exam	00	10								
Learning Outcome 2	Student will be able to describe the packaging and dispatch.	08	10								
1	L (HSD24CD										
Contonta			load								
Contents	Different types of packers and loaders (truck loading machine	-	-								
Contents	Different types of packers and loaders (truck loading machine machines, bulk loading in wagons, trucks and ship), the	ir operat	ion and								
Contents	Different types of packers and loaders (truck loading machine machines, bulk loading in wagons, trucks and ship), the selections, methods of extraction from cement silos, S	ir operat ilo Aera	ion and ation &								
Contents	Different types of packers and loaders (truck loading machine machines, bulk loading in wagons, trucks and ship), the	ir operat ilo Aera	ion and ation &								

	Historical evolution of manufacturing process and recent trends.
Method of Assessment	Paper pen test

RGI	PV (DII	PLOMA W	ING)	SCHEME FOR	LEARNING	Brai	nch Cod	le	Co	ourse C	ode		CO Code	LO Code	
	BF	IOPAL		OUTC	OME	Р	0	4	5	0		1	1	1	Format No. 4
COURS NAME	-	PRINTER'S	COSTIN	G & ESTIMATING										1	
CO Des	cription	Student will b	e able to	plan costing.											
LO Des	cription	To describe co	ost, and its	principles.											
				S	CHEME OF ST	UDY									
S. No.	Le	arning Conte	nt	Teaching - Learning Method	Description of Process		Tea Hrs		Pract H	ical/T Irs.	ut		L. Requ	Rs 1ired	Remarks
1	classificat	n of cost, price, a ion of exp expenditure.		provide students. conduct tion to practice	07			-		I	Hando PP		NIL		
				SCHI	EME OF ASSES	SSMENT	1	•							
S. No.		ethod of sessment		Description of Assess	ment	Maximu Marks	m		Reso	urces	Re	equir	ed		External / Internal
1	-	er pen test, signment	Student principl	will be asked to describes.	be cost and its	10				Test p	pape	er			Internal
			ADDI	FIONAL INSTRUCT	TIONS FOR TH	IE HOD/	FAC	ULT	Y (IF	ANY))				
					NIL										

RG	PV (DI	PLOMA WI	NG)	SCHEM	E FOR	LEARNING	Bra	nch Coo	de	Co	ourse Coo	de	CO Code	LO Code	
	BI	HOPAL	,		OUTC	OME	Р	0	4	5	0	1	1	2	Format No. 4
COURS NAME		PRINTER'S C	COSTIN	G & ESTIMA	TING		1	1		1	11				
CO Des	cription	Student will be	e able to	plan costing.											
LO Des	cription	To classify cost	and eler	nents of cost.											
					S	CHEME OF STU	DY								
S. No.	Le	earning Conten	t	Teachiı Learning I	0	Description of Process	T-L	Tea Hr			ical/Tu Irs.	ıt	LI Requ		Remarks
1	8		control. t labour, our cost, overtime nts, job es and istics of of direct ixed and erheads, factory ionment, ice and selling	Traditional method + H PPT	andout +	Teacher will c seminar/presentation make students p their knowledge.	orovide udents. onduct on to ractice	10			-		Hando PP		NIL
S. No.	Method of					ment	DF ASSESSMENT Maximum Marks Resources Require				equired Extended Inte				

1 Paper pen test Student will be asked to classify cost and elements of cost. 10 Test paper H												
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)												
NIL												

RGI	PV (DIP	LOMA WI	NG)	SCHEME FO	R LEARNIN		Bran	ich Cod	le	Co	ourse Co	ode	CO Code	LO Code	
	BH	IOPAL		OUTC	COME	P		0	4	5	0	1	2	1	Format No. 4
COURS NAME	SE	PRINTER'S C	COSTIN	G & ESTIMATING								1			
CO Des	cription	Student will be	e able to	utilize terminology of	cost accounting	in print	ing	indus	try.						
LO Des	cription	To analyse met	hods of a	llocating fixed costs an	d overheads.										
	·			S	SCHEME OF S	STUDY									
S. No.	Lea	arning Conten	t	Teaching - Learning Method	Description Proce			Tea Hr		Pract F	ical/T Irs.	ut		Rs uired	Remarks
1	Methods of allocating fixed costs and overheads. Operating cost classification transport service, power			l overheads. erating cost classification nsport service, power ctricity service, canteen vice etc. Herbod + Handout + PPT Contents and provide handout to students. Teacher will conduct seminar/presentation to make students practice their knowledge.							-		Hando PP		NIL
				SCH	EME OF ASS	ESSME	NT								·
S. No.	-	ethod of essment		Description of Asses	sment	Maxir Mar		n		Reso	urces	Requ	ired		External / Internal
1	-	r pen test, ignment		will be asked to descr ng fixed costs and over									Internal		
			ADDI'	FIONAL INSTRUC	TIONS FOR 1	THE HO	D / 1	FAC	ULT	Y (IF	ANY)				1
					NIL										

RGI	PV (DIP	LOMA WI	NG)	SCHEN	ME FOR	LEARNIN	G Bra	nch Co	de	Co	ourse Co	ode	CO Code	LO Code	
	BH	OPAL	-		OUTC	OME	Р	0	4	5	0	1	2	2	Format No. 4
COURS NAME	SE	PRINTER'S C	COSTIN	G & ESTIM	ATING		I								1
CO Des	cription	Student will be	e able to	utilize term	inology of c	cost accounting i	in printing	g indus	try.						
LO Des	cription	To describe for	ecast of l	ife of assets	and depreci	ation.									
					S	CHEME OF S'	TUDY								
S. No.	Lea	rning Conten	t	Teach Learning	0	Description Proces		Tea Hr			ical/T ⁻ Irs.	ut	L] Requ		Remarks
1		ots of depreciation and its method + Handout + contents PPT C C C C C C C C C C C C C C C C C C					xplain the provide students. conduct tation to s practice e.				-		Hando PP		NIL
					SCHI	EME OF ASSE	ESSMEN	Γ							
S. No.	-	thod of essment		Description	n of Assess	ment	Maximu Marks			Reso	urces	Requi	red		External / Internal
1	-	pen test, gnment		t will be aske assets and dep		be forecast of	10				Test p	aper			Internal
			ADDI	TIONAL I	NSTRUC	TIONS FOR T	HE HOD	/ FAC	ULT	Y (IF	ANY)				1
						NIL									

RGI	PV (DIPLOMA	WING)	SCHEME FOR	LEARNIN	G Bra	nch Cod	le	Co	ourse Co	ode	CO Code	LO Code	
	BHOPAL		OUTC	OME	Р	0	4	5	0	1	3	1	Format No. 4
COURS NAME	SE PRINTER	S COSTIN	G & ESTIMATING							1			
CO Des	cription Student wi	l be able to	analyse cost audit, bud	lgetary control a	nd materi	al puro	chase	e proce	dure.				
LO Des	cription To describe	cost audit a	nd budgetary control.										
			S	CHEME OF ST	ΓUDY								
S. No.	Learning Con	tent	Teaching - Learning Method	Description Proces		Tea Hrs		Pract H	ical/T Irs.	ut		Rs uired	Remarks
1	Cost audits, meanin, cost audit, a Budgetary control, objective, advantages limitations, classifi budget. Cost variation Cost control and cost Productivity role accounting in cost Capital budgeting.	dvantages. meaning requisites, cation of s. reduction. of cost	Traditional Lecture method + Handout + PPT	Teacher will ex contents and handout to Teacher will seminar/presents make students their knowledge	provide students. conduct ation to practice	10			-		Hande PP		NIL
			SCHI	EME OF ASSE	SSMENT								
S. No.	Method of Assessment		Description of Assess	sment	Maximu Marks			Reso	urces	Requ	ired		External / Internal
1	Paper pen test		will be asked to descr lgetary control.	ibe cost audit	10				Test p	aper			External
		ADDI	TIONAL INSTRUCT	FIONS FOR TH	HE HOD/	FAC	ULT	Y (IF	ANY)				1
				NIL									

RGI	PV (DIP	LOMA WIN	NG)	SCHEME FOR	LEARNIN	G Bra	nch Coc	de	Co	urse Coo	de	CO Code	LO Code	
	BH	OPAL	,	OUTC	OME	Р	0	4	5	0	1	3	2	Format No. 4
COURS NAME	SE	PRINTER'S CO	OSTIN	G & ESTIMATING		I	1	1					1	
CO Des	cription	Student will be	able to	analyse cost audit, bud	getary control a	nd materi	al pur	chase	e proceo	lure.				
LO Des	cription 7	To describe mate	erial pur	chase procedure & taxat	ion.									
	l			S	CHEME OF ST	ΓUDY								
S. No.	Lea	rning Content		Teaching - Learning Method	Description Proces		Tea Hr			ical/Tu Irs.	ıt	L] Requ		Remarks
1				Traditional Lecture method + Handout + PPT	xplain the provide students. conduct ation to practice	10			-		Hando PP		NIL	
				SCHI	EME OF ASSE	SSMENT								
S. No.		thod of essment		Description of Assess	ment	Maximu Marks			Resou	urces F	Requi	red		External / Internal
1	Paper	I · · · · · · · ·		will be asked to desc e procedure & taxation.	ribe material	10				Test pa	per			External
	I		ADDI	FIONAL INSTRUCT	TIONS FOR TH	HE HOD/	FAC	ULT	Y (IF	ANY)				I
					NIL									

RGI	PV (DIPLO	DMA WING)	SCHEME FOR	LEARNIN	G Brai	nch Cod	le	Co	urse Co	ode	CO Code	LO Code	
	BHOI	PAL	OUTC	OME	Р	0	4	5	0	1	4	1	Format No. 4
COURS NAME	- PR	INTER'S COSTIN	G & ESTIMATING			11		1 1					
CO Des	cription Stu	dent will be able to	apply principles of fed	eration costing sy	ystem.								
LO Des	cription To	describe principles a	nd stages involved in fec	leration costing sy	/stem.								
			S	CHEME OF ST	UDY								
S. No.	Learni	ng Content	Teaching - Learning Method	Description Process		Tea Hrs		Practi H	ical/T Irs.	ut		Rs uired	Remarks
1	costing syste costing syster costing syster system (time Comparison variable cost,	costing system. tages of federation m. Foundation of n aims & object of m, types of costing rate, work rate). fixed cost & just in time cost, ness, standard press	Traditional Lecture method + Handout + PPT	Teacher will ex contents and handout to Teacher will seminar/presenta make students their knowledge.	provide students. conduct ation to practice	10			-		Hand PI		NIL
			SCHI	EME OF ASSES	SSMENT								
S. No.	Metho Assessi		Description of Assess	sment	Maximu Marks			Resou	urces	Requ	ired		External / Internal
1	Paper per		will be asked to descr ges of federation costing	1 1	10				Test p	aper			External
	I	ADDI	TIONAL INSTRUCT	FIONS FOR TH	IE HOD/	FACU	ULT	Y (IF	ANY)				
				NIL									

RGI	PV (DIP	LOMA WI	NG)	SCHEM	E FOR	LEARNIN	G Bra	nch Cod	le	Co	urse Co	de	CO Code	LO Code	
	BH	OPAL			OUTC	OME	Р	0	4	5	0	1	4	2	Format No. 4
COURS NAME	SE]	PRINTER'S C	OSTIN	G & ESTIMA	TING				1						
CO Des	cription S	Student will be	able to	apply princip	les of fed	eration costing s	ystem.								
LO Des	cription 7	To interpret the	various	forms and prof	ormas in	printing.									
	I				S	CHEME OF ST	ΓUDY								
S. No.	Lear	rning Content	;	Teachin Learning N	0	Description Proces		Tea Hr		Pract	ical/Tu Irs.	ut	L] Requ		Remarks
1	instruction importance Generating work instr ticket, mat statement of making est		their osting. Aaking & job form, t sheet picing:	Traditional method + Ha PPT	od + Handout + contents and pro- handout to stud Teacher will con- seminar/presentation make students pra- their knowledge.						-		Hando PP		NIL
					SCHI	EME OF ASSE	SSMENT								
S. No.		hod of essment		Description of	of Assess	sment	Maximu Marks			Resou	irces]	Requi	red		External / Internal
1	Paper	-		will be aske proformas in pr		ssify various	10				Test pa	aper			External
			ADDI	FIONAL INS	STRUCI	TIONS FOR TH	HE HOD/	FAC	ULT	Y (IF	ANY)				1
						NIL									

RGPV (DIPLOMA WING) BHOPAL				SCHEME FOR LEARNING OUTCOME			G Brai	Branch Code			Course Code			LO Code		
							Р	0	4	5	0	1	5	1	Format No. 4	
COURS NAME	SE PI	RINTER'S CO	OSTINO	NG & ESTIMATING												
CO Desc	cription St	tudent will be a	able to	prepare estimate and plan estimation procedure.												
LO Desc	cription To	o describe conce	ept & n	nethod of esti	mation and	l its application.										
					S	CHEME OF ST	ГUDY									
S. No.	No. Learning Content			Teaching -DescriptionLearning MethodProce						Practical/Tut Hrs.		ıt	LRs Required		Remarks	
1	Definitionandconceptofestimationscopesadvantages.Qualificationofanestimator.Estimator'stools,workingenvironment.Differencebetweenestimate&cost.advantagesand objectives of costadvantagesand objectives of cost.Determininghourly costs:labour,machine, etc.Output costing or unit costing and cost sheet.Organisationalstructureofprintingindustry.			Traditional	al Lecture Teacher will explai - Handout + contents and pr handout to stu- Teacher will co seminar/presentation make students pr their knowledge.			Hrs. Hrs. 10 -			Required Handout + PPT		NIL			
					SCHI	EME OF ASSE										
S. No.	Meth Assess	od of sment	ment	Maximu Marks	n Resources Required						External / Internal					
1	Paper p		be concept & plication.	10	10			Test paper				External				
			ADDI	FIONAL IN	ISTRUCI	TIONS FOR TI NIL	HE HOD/	FACU	JLT	Y (IF	ANY)				1	

RGPV (DIPLOMA WING)				SCHEME FOR LEARNING OUTCOME			G Bra	Branch Code			Course Code			LO Code	Λ	
BHOPAL			Р				0	4	5	0	1	5	2	Format No. 4		
COURSE NAMEPRINTER'S COSTINGCO DescriptionStudent will be able to pLO DescriptionTo prepare estimate for p				G & ESTIMATING prepare estimate and plan estimation procedure.												
									S	CHEME OF S	TUDY					
S. No.	Learning Content			Teaching -DescriptLearning MethodProvide						Practical/Tut Hrs.		ıt	LRs Required		Remarks	
1	board, plastic f substrates used Wastage allowar types of substrat printing process weight of ink solutions etc Estimating othe indirect material press, printin marketing Understanding operations &	ating weight of paper, plastic films and other ates used in printing. ge allowance for different of substrates according to ag processes. Estimating t of ink and coating ons etc for printing. ating other direct and ct material costs for pre- printing finishing, ting and sales. standing sequence of ions & time required. ting estimates using			Learning Method Process raditional Lecture Teacher will expl nethod + Handout + contents and p PT handout to st Teacher will c seminar/presentation make students p their knowledge. their knowledge.			10	10 -			Handout + PPT		NIL		
	1	I			SCHI	EME OF ASSE									1	
S. No.		Method of Assessment			n of Assess	sment	Maximu Marks		Resources Req			Requi	red		External / Internal	
1	Paper pen te	est		will be aske materials.	ed to prepar	e estimate for		Test paper						External		
	•		ADDI '	FIONAL I	NSTRUCI	FIONS FOR T	HE HOD/	'FAC	ULT	Y (IF A	ANY)				·	
						NIL										