RAJIV GANDHI PROUDYOGIKI VISHVAVIDYALAYA (DIPLOMA WING) BHOPAL

P05 DIPLOMA IN PRODUCTION ENGINEERING

PART A: - PROCESS OF CURRICULUM DEVELOPMENT

LIST OF IDENTIFIED PROFESSIONAL ROLES

- 1. To apply knowledge of mathematics, science, and engineering.
- 2. To design and conduct experiments, as well as to analyze and interpret data.
- 3. To design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- 4. To function on multidisciplinary teams.
- 5. To identify, formulate, and solve engineering problems.
- 6. To understand professional and ethical responsibility.
- 7. To communicate effectively.
- 8. To understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- 9. To engage in lifelong learning.
- 10. To use the techniques, skills, and modern engineering tools necessary for engineering practice.

LIST OF SELECTED TERMINAL BEHAVIORS

- 1. To apply knowledge of mathematics, science, and engineering.
 - TB-1 To understand principle and application of Unconventional Machining. (501)
- 2. To design and conduct experiments, as well as to analyze and interpret data.
- 3. To design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability. NIL
- 4. To function on multidisciplinary teams. NIL
- 5. To identify, formulate, and solve engineering problems NIL
- 6. To understand professional and ethical responsibility
- 7. To communicate effectively NIL
- 8. To understand the impact of engineering solutions in a global, economic, environmental, and societal context.

NIL

- 9. To engage in lifelong learning
 - TB-1 To perform grinding on Grinding Machine. (501)
 - TB-2 To perform thread cutting on Lathe Machine. (501)
 - TB-3To perform thread cutting by Dies and Taps. (501)
- 10. To use the techniques, skills, and modern engineering tools necessary for engineering practice. NIL

FRAMED COS FOR SELECTED TERMINAL BEHAVIORS

- 1. To apply knowledge of mathematics, science, and engineering.
 - TB-1 To understand principle and application of Unconventional Machining. (501)
 - C03: Describe the importance and types of unconventional machining processes. (501)
- 2. To design and conduct experiments, as well as to analyze and interpret data. NIL
- 3. To design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.

 NIL
- 4. To function on multidisciplinary teams.

NIL

- 5. To identify, formulate, and solve engineering problems NIL
- 6. To understand professional and ethical responsibility NIL
- 7. To communicate effectively

NIL

- 8. To understand the impact of engineering solutions in a global, economic, environmental, and societal context. NIL
- 9. To engage in lifelong learning
 - TB-1: To perform grinding on Grinding Machine. (501)
 - C0-4: Explain the types of surface finishing processes. (501)
 - TB-2: To perform thread cutting on Lathe Machine. (501)
 - C0-5: Explain the thread and gear manufacturing methods. (501)
 - TB-3: To perform thread cutting by Dies and Taps. (501)
 - C0-5: Explain the thread and gear manufacturing methods. (501)
- 10. To use the techniques, skills, and modern engineering tools necessary for engineering practice.

NIL

CO GROUPING AND COURSE FORMATION

COURSE NAME: - PRODUCTION TECHNOLOGY II (501)

(Total 100 Hrs., Total 100 Marks)

LIST OF COs: -

CO1: Demonstrate understanding of the mass production techniques. (20 Hrs., 20 marks)

CO2: Describe the press working operations. (20 Hrs., 20 marks)

CO3: Describe the importance and types of unconventional machining processes. (20 Hrs, 20 marks)

C04: Explain the types of surface finishing processes. (20 Hrs., 20 marks)

C05: Explain the thread and gear manufacturing processes. (20 Hrs., 20 marks)

LOs FORMATION

COURSE NAME: - PRODUCTION TECHNOLOGY II (501) (Total 100 Hrs., Total 100 Marks)

List of COs and Los

CO1: Demonstrate understanding of the mass production techniques. (20 Hrs, 20 marks)

LO1: To explain the working of Capstan and Turret lathes. (10 Hrs., 10 Marks)

LO2: To understand need and application of Jigs and Fixtures in mass production. (10 Hrs., 10 Marks)

CO2: Describe the press working operations. (20 Hrs, 20 marks)

LO1: To understand press working terminologies. (05 Hrs., 05 Marks)

LO2: To explain different types of Press working operations. (15 Hrs., 15 Marks)

CO3: Describe the importance and types of unconventional machining processes (20 Hrs, 20 marks)

LO1: To know the need, application and classification of unconventional machining processes (05 Hrs, 05 Marks)

LO2: To explain different types of unconventional machining processes. (15 Hrs., 15 Marks)

CO4: Explain the types of surface finishing processes. (20 Hrs, 20 marks)

LO1: To know about the grinding process. (10 Hrs., 10 Marks)

LO2: To explain different types of surface finishing processes. (10 Hrs., 10 Marks)

CO5: Explain the thread and gear manufacturing processes. (20 Hrs, 20 marks)

LO1: To explain different types of thread manufacturing processes. (10 Hrs., 10 Marks)

LO2: To explain different types of gear manufacturing processes. (10 Hrs., 10 Marks)

PART B: - CURRICULUM OF PRODUCTION ENGINEERING

RGP	V (Dipl	oma V	Ving) Bhopal		COURSI	E PLAN	١	Form	at -2	Sł	neet No	. 1/1
Co	urse Na	me	PRODUCT	ION	TECHNOLO	GY II		Seme	ester		FIFTH	[
Branc	ch		ODUCTION GINEERING		Course Code	501	No.	of CO's	05	No. o	of LO's	10
Tea	Hrs. of aching arning	100	Total Marks	100	Total no. of Assessments			pes of ssments		Ex	o. of ternal ssment	S
			DESCR	IPTI(ON OF OUTC	OMES					T-L Hrs.	Max. Marks
CO 01	P0550)11	Demonstratechniques.		nderstandin	g of th	ne ma	ss prod	uctio	n	20	20
Log	P0550)111	•		king of Capsta	n and T	Curret 1	athes.			10	10
Los	P0550)112	To understand production.	nee	d and application	on of Ji	gs and	Fixtures	in ma	ıss	10	10
CO 02	P0550)12	Describe th	e pr	ess working	opera	ations	•			20	20
Las	P0550)121	To understand	d pre	ss working teri	ninolog	gies.				05	05
Los	P0550)122	To explain di	ffere	nt types of Pres	ss work	ing op	erations.			15	15
CO 03	P0550)13	Describe the machining		portance and esses	l types	of un	convent	tional	l	20	20
T as	P0550)131			, application ar		ificatio	on of			05	05
Los	P0550	0132			nt types of unc		ional n	nachining	5		15	15
CO 04	P0550)14	Explain the	e typ	es of surfac	e finis	shing	process	ses		20	20
Los	P0550)141	To know abo	ut the	e grinding proc	ess					10	10
LUS	P0550)142	To explain di	ffere	nt types of surf	ace fin	ishing	processe	s		10	10
CO 05	P0550)15	Explain the	e th	read and gea	ar ma	nufac	turing	proc	esses	20	20
Los	P0550)151	To explain di	ffere	nt types of thre	ad mar	nufactu	ring proc	esses	•	10	10
P0550152 To explain different types of gear manufacturing processes.								10	10			

`	PLOMA WING) HOPAL	OCB CURRICULU	M FOR THE COURSE	FORMA	AT- 3	Sheet No. 1/2
Branch	PRODUCTION	ENGINEERING	Semester	-1	FIF	ГН
Course Code	501	Course Name	PRODUCTION TEC	CHNOLO	OGY II	
Course Outcome 1	Demonstrate techniques.	understanding of	the mass production	1	Teach Hrs	Marks
Learning Outcome 1	To explain the v	vorking of Capstan a	and Turret lathes.		10	10
CONTENT	capstan lathe and holding devices,	l turret lathe, Block d	ter Lathe and capstan/turn iagram and parts of capsta e operations, Bar feeding	an lathe a	nd turre	t lathe, work
Method of Assessment		Paper po	en test/ Practical assessmo	ent		
Learning Outcome 2	production.		of Jigs and Fixtures in		10	10
CONTENT			& fixture, Uses of jigs and Methods of location, Jig		_	•
Method of Assessment		Paper po	en test/ Practical assessme	ent		
Course Outcome 2	Describe the p	press working ope	erations.		Teach Hrs	Marks
Learning Outcome 1	To understand]	press working termi	nologies.		05	05
CONTENT	Introduction, Ap	plication, Types of pr	resses, Press working tern	ninologie	S	
Method of Assessment			Paper pen test			
Learning Outcome 2	To explain diffe	rent types of Press v	vorking Operations.		15	15
CONTENT	Press tools, Selectoack	tion of press, Press w	orking operations, Types	of dies, I	Deep dra	awing, Spring
Method of Assessment			Paper pen test			
Course Outcome 3	Describe the i		es of unconventional		Teach Hrs	Marks
Learning Outcome 1	To know the ne		classification of unconve	entional	05	05
CONTENT	0 1		tion of unconventional m	achining	processo	es
Method of Assessment			Paper pen test			

`	PLOMA WING HOPAL	OCB CURRICULU	JM FOR THE COURSE	FORM	[AT- 3]	Sheet No. 2/2
Branch	PRODUCTIO	N ENGINEERING	Semester		FIFT	Ή
Course Code	501	Course Name	PRODUCTION TEC	CHNOL	OGY II	
Learning Outcome 2	To explain d	ifferent types of uncor	nventional machining pro	ocesses.	15	15
CONTENT	Electro Cher	nical Grinding, Electro	c Machining, Electro Cher Discharge Machining, Ele Machining, Ion Beam Ma	ectron Bo	eam Macl	nining,
Method of Assessment			Paper pen test			
Course Outcome 4	Explain th	e types of surface f	inishing processes		Teach Hrs	Marks
Learning Outcome 1	To know abo	out the grinding proces	SS		10	10
CONTENT	Standard man	king system for grinding	pes of Abrasives and Bond ng wheels, Grinding machi and Balancing of grinding	nes, Wh	_	_
Method of Assessment		Paper p	en test/ Practical assessme	ent		
Learning Outcome 2	To explain d	ifferent types of surfac	ce finishing processes		10	10
CONTENT		Lapping, Honing, Supeg, Galvanizing, Metal sp	. , ,	ffing, Ho	ot dipping	
Method of Assessment			Paper pen test			
Course Outcome 5	Explain the	e thread and gear n	nanufacturing proces	sses	Teach Hrs	Marks
Learning Outcome 1	To explain d	ifferent types of threa	d manufacturing process	es.	10	10
CONTENT		facturing methods, Thr he and capstan/turret la	read milling, Thread rolling the	g, Threa	d grinding	g, Thread
Method of Assessment		Paper p	oen test/ Practical assessme	ent		
Learning Outcome 2	To explain d	ifferent types of gear 1	manufacturing processes	•	10	10
CONTENT		r shaping, Gear cutting	generating processes, Gea by rack cutters, Gear Hob			
Method of Assessment			Paper pen test			

CO1:LO1

O1:L0	O1									
RG	PV (Diploma V Bhopal	Wing) SCH	IEME FOR I OUTCO		Branch Code P05	Cours Code 501	e Code	Co 0	de	Format No. 4
COU	RSE NAME	PRODU	CTION TE	ECHNOLO	GY II					
CO D	Description	Demonst	rate unders	tanding of	the mas	s produ	ction tech	niau	es.	
LO D	escription			ing of Cap		_		1		
		<u> </u>		SCHEME O						
S. No.	Learning C	Content	Teaching– Learning Method	Descriptio Proce		Teach Hrs.	Pract. /Tut Hrs.	LRs Reg	s quired	Remarks
b c c la p tt d fe	Introduction, Detween Center apstan/turret la Difference betwapstan lathe and the, Block dia arts of capstan arret lathe, wor evices, capstand the operations beeding Mechandexing Mechande	Lathe and othe, ween and turret gram and lathe and other k holding a & turret gram, Bar anism, Turret anism,	Traditional Lecture method + Practical (Machine Shop)	Teacher will the contents will conduct Progressive Assignment	. Teacher test/ give		02	Boo	hine	
	<u> </u>	<u>, </u>	SCI	HEME OF A	SSESSM	ENT				
S. No	Method of Assessment		escription of	Assessment	N	Maximur Marks	n Resour		Exter	
1	Paper pen tes Practical assessment	`	swer of quest	g content, Studions and face		10	Progres test/End semeste exam/ Practica file	l er	Interna /Extern	
	A	DDITION	AL INSTRUC	CTIONS FOI	R THE H	OD/ FA	CULTY (IF	ANY	<i>Y</i>)	
List of	f <mark>Practical</mark> Planning of T	Tool Layou	and job mad	chining on tu	rret/capst	an lathe				
	-	•								

CO1:LO2

Introduction, Difference between Jig & fixture, Uses of jigs and Fixtures, Design Principles of Jigs & Fixtures, Principle of Location, Methods of location, Jig & Fixture construction Scheme OF Assessment Description of Assessment Maximum Marks Required Method Method Method Method Method Machine Maximum Marks Required Method Method	JOI:									
Demonstrate understanding of the mass production techniques. To understand need and application of Jigs and Fixtures in mass production SCHEME OF STUDY S. Learning Content Introduction, Difference between Jig & fixture, Uses of jigs and Fixtures, Principles of Jigs & Practical Fixtures, Principle of Location, Methods of location, Jig & Fixture construction SCHEME OF STUDY Teaching—Description of T-L Process Hrs. / Tut Hrs. Required Traditional Lecture method + Practical (Machine Shop) SCHEME OF ASSESSMENT S. No Method of Assessment Paper pen test/ For the given learning content, Students write answer of questions and face assessment ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY) sist of Practical ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY) sist of Practical	R					Code	Code	e Code	Code	
To understand need and application of Jigs and Fixtures in mass production SCHEME OF STUDY	COU	RSE NAME	PRODU	JCTION TECH	INOLOGY II					
SCHEME OF STUDY S. Learning Content Introduction, Difference between Jig & fixture, Uses of jigs and Fixtures, Principle of Location, Methods of location, Jig & Fixture construction SCHEME OF STUDY Teaching—Process Hrs. /Tut Hrs. Required Traditional Lecture the content. Teacher will explain the content. Teacher will conduct Progressive test/quiz so that students Explain jigs/fixtures SCHEME OF ASSESSMENT Assessment Paper pen test/ For the given learning content, Students write answer of questions and face assessment ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY) Learning—Description of T-L Teach Pract. Hrs. /Tut Hrs. Required Book, Machine Shop Handout, Book, Machine Shop, Shop Wasimum Marks Required Internal Progressive External / Internal Lecture the content. Teacher Will conduct Progressive test/quiz Shop SCHEME OF ASSESSMENT SCHEME OF ASSESSMENT Assessment Assessment Assessment Assessment ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY) Learning Practical ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)	СО	Description	Demon	strate unders	tanding of th	ne mass	produ	ction tech	niques.	
Learning Content Teaching	LO I	Description	To und	erstand need a	and application	on of Ji	gs and	Fixtures in	n mass p	roduction
Introduction, Difference between Jig & fixture, Uses of jigs and Fixtures, Design Principles of Jigs & Fixtures, Principle of Location, Methods of location, Jig & Fixture construction SCHEME OF ASSESSMENT S. No Method of Assessment Paper pen test/ Practical Practical assessment Paper pen test/ Practical Viva Practical Viva Practical (Machine so that students explain jigs/fixtures) Paper pen test/ Practical of the given learning content, Students write answer of questions and face Practical file ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY) Learning Method 08 O2 Handout, Book, Machine Shop Washine Shop Shop Shop Fixtures, Principle of (Machine so that students explain jigs/fixtures) SCHEME OF ASSESSMENT S. No Method of Assessment Paper pen test/ For the given learning content, Students write answer of questions and face Practical file ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY) List of Practical					**				•	
between Jig & fixture, Uses of jigs and Fixtures, Design Principles of Jigs & Fixtures, Principle of Location, Methods of location, Jig & Fixture construction SCHEME OF ASSESSMENT S. No Method of Assessment Paper pen test/ Practical assessment Paper pen test/ Practical assessment ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY) Lecture the content. Teacher will conduct Progressive test/quiz so that students explain jigs/fixtures Book, Machine Shop Maximum Maximum Marks Required Internal Progressive test/ End semester exam/ Practical file ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)	S. No.	Learning C	ontent	Learning	_					
S. No Method of Assessment Description of Assessment Maximum Marks Required Internal Paper pen test/ For the given learning content, Students write answer of questions and face Practical assessment Practical Viva Semester exam/ Practical file ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY) List of Practical	1 1 1 1 1 1	Detween Jig & find Jigs and Design Principle Fixtures, Principle Location, Metholocation, Jig & Find Jig & Fin	ixture, Fixtures es of Jigs ble of ods of	Lecture method + Practical (Machine	the content. T will conduct Progressive to so that studen	est/quiz	08	02	Book, Machine	
Assessment Marks Required Internal				SCI	HEME OF AS	SESSME	ENT			
Practical write answer of questions and face assessment Practical Viva test/ End /External semester exam/ Practical file ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY) List of Practical	S. N			Description of	Assessment					
ist of Practical	1	Practical	write a	answer of quest		lents	10	test/ I semeste exam/ Practica	End /Ex	
		Al	DDITIO	NAL INSTRUC	CTIONS FOR	THE HO	DD/ FAC	CULTY (IF	ANY)	
Design and sketch a fixture for a given job	List (of Practical								
	•	Design and s	ketch a f	fixture for a give	en job					

CO2: LO1

RC	BPV (Diploma V Bhopal	Ving)	SCHEME FOR OUTC		Branch Code P05	Cours Code 501		LC Coc 01	de No. 4
COU	JRSE NAME	PROD	UCTION TECH	INOLOGY II					
CO	Description	Descri	be the press v	vorking oper	ations.				
LO I	Description	To und	derstand press	working ter	minolo	gies.			
			,	SCHEME OF	STUDY				
S. No.	Learning C	ontent	Teaching— Learning Method	Description Proces		Teach Hrs.	Pract./ Tut Hrs.	s Requ	Remarks
Introduction, Application, Types of presses, Press working terminologies Traditional Lecture method + Assignment Traditional Lecture method + Students. Teacher will conduct Progressive test/give assignment so that students will know about presses									
			SCH	HEME OF ASS	ESSME	ENT		"	1
S. N	Method of Assessment		Description of	Assessment	N	Aaximun Marks	Resour Requir		External / Internal
1	Paper pen tes		ne given learnin answer of ques	-	lents	05	Progress Test pa End semeste exam	per/	Internal /External
	AΓ	DITIO	NAL INSTRUC	CTIONS FOR	ГНЕ НС	DD/ FAC	ULTY (IF	ANY))

CO2: LO2

RG	PV (Diploma V Bhopal	Wing)	SCH	EME FOR I		Branch Code P05	Code 501	e Code		Oode 2	Format No. 4
COU	RSE NAME	PRO	DUC	TION TECH	INOLOGY II						
COI	Description	Desc	cribe	the press v	working ope	rations.					
LO I	Description	To e	xplai	in different	types of Pro	ess wor	king O	peration	S.		
				S	SCHEME OF	STUDY	7				
S. No.	Learning C	Conten	t	Teaching– Learning Method	Description Proces		Teach Hrs.	Pract./ Tut Hrs.	LR Re	s quired	Remarks
1	Press tools, So press, Press w operations, Ty dies, Deep dra Spring back	orking pes of	g f	Traditional Lecture method + Assignment	Teacher will the content students. Tea conduct Prog test/give ass so that studen know about p tools and die	to tcher will gressive signment onts will press		_	Har Boo	ndout, ok	
				SCH	IEME OF ASS	SESSMI	ENT	1	1		1
S. No	Method of Assessment		D	escription of	Assessment	N	Maximur Marks		urces iired		rnal / rnal
1	Paper pen tes			given learning swer of quest	g content, Studions.	dents	15		essive paper/	Interna /Exter	
	AI	DDITI	ONA	L I <mark>NSTRUC</mark>	TIONS FOR	THE HO	OD/ FAC	CULTY (I	FANY	<i>(</i>)	

CO3:LO1

	-							_		
RGP	V (Diploma V Bhopa	٠,		LEARNING JTCOME	Branch Code P05	Course Code 501		C	LO ode <mark>01</mark>	Format No. 4
COURS	SE NAME	PRODUC	TION TECH	NOLOGY II						
CO Des	scription	Describe	the importar	nce and types	of unco	nventiona	al machini	ng p	rocess	es
LO Des	scription	To know t	he need, appl	ication and cla	ssificatio	on of unco	onventional	mac	hining	processes
				SCHEME OF	STUDY					
S. No.	Learning	Content	Teaching— Learning Method	Description Pro	n of T-L ocess	Teach Hrs.	Pract./ Tut Hrs.	Red	LRs quired	Remarks
aı u	ntroduction, n nd classific nconventional nachining prod	ation of l	Lecture method +	Teacher will e the contents provide hand students. Teac conduct Progr test/assignmenthat students k about unconverse machining pro	and lout to ther will essive to so chow entional	5	-	Han Boo	dout, k	
,			SCI	HEME OF ASS	SESSME	NT				
S. No	Method of Assessment	Г	Description of	Assessment		aximum Marks	Resour Requir		Exte:	rnal / rnal
1	Paper pen test		given learning swer of quest	g content, Stud ions.	ents	5	Progres Test pap End semeste exam	per/	Interna /Extern	
	AΓ	DDITION	AL INSTRUC	CTIONS FOR	THE HO	D/ FACU	JLTY (IF A	ANY))	

CO3:LO2

CO3:LO	12									
RGP	V (Diploma V Bhopa	<u> </u>	SCHEME FOR OU	LEARNING JTCOME	Branch Code P05	Cours Code 501		Co	LO ode <mark>2</mark>	Format No. 4
COURS	SE NAME	PRODU	JCTION TECH	NOLOGY II				1		ı
CO Des	scription	Descril	oe the importar	nce and types	of unco	nvention	al machini	ing pro	ocesso	es
LO Des	omination.		olain different	types of und	convent	ional ma				
				SCHEME OF	STUDY					
S. No.	Learning Co	ontent	Teaching— Learning Method	Description Proces		Teach Hrs.	Pract./ Tut Hrs.	LRs Requ	ired	Remarks
Ulti Ele Ma Ch Ele Ma Be Pla La	brasive Jet Ma tra Sonic Madectro Chemic achining, Electro Dischar achining, Electro Dischar achining, Electro Machining asma Arc Madeser Beam Machining	chining al ctro ling, ge ctron ng, chining	Lecture method + Assignment	Teacher will ethe contents students. Teac conduct Progretest/quiz so students know various uncon machining progretest	to ther will ressive that about eventiona	15	_	Hande Book	out,	
			SCI	HEME OF AS	SESSME	ENT		-		ı
S. No	Method of Assessment		Description of	Assessment		aximum Marks	Resour Requir			ernal / ternal
1 F	Paper pen test		ne given learning answer of quest	_	lents	15	Progres Test pay End ser exam	per/	Interior /Exte	
	AΓ	DDITIC	NAL INSTRUC	CTIONS FOR	THE HC	D/ FAC	ULTY (IF A	ANY)		

CO4:LO1

CO4:	LO1									
R	GPV (Diploma Bhop	· ·		LEARNING JTCOME	Branch Code P05		de	CO Code 04	LO Code <mark>01</mark>	Format No. 4
COL	JRSE NAME	PRODUC	CTION TECH	NOLOGY II					<u>I</u>	1
CO	Description	Explain	the types of	surface fini	shing p	rocesse	es			
LO I	Description	-	<u> </u>	grinding pro						
				SCHEME OF		<u> </u>				
S. No.	Learning C	ontent	Teaching— Learning Method	Description Proces		Tea ch Hrs	Pra Tut	ct./ Hrs.	LRs Required	Remarks
1	Introduction, To Grinding, Typ Abrasives and Selection of growheels, Standamarking system grinding wheel Grinding mack Wheel shapes Glazing, Load Dressing, Truit Balancing of growheels	es of Bonds, rinding ard m for els, hines, & sizes, ing, ng and	Traditional Lecture method + Practical (Machine Shop)	Teacher will of the contents students. The will learn aborder grinding process.	s to students out the	08		02	Handout, Book, Machine Shop	
			SCI	HEME OF AS	SESSMI	ENT				
S. N	Method of Assessment		Description of	Assessment		Iaximur Marks	n	Resour ces Requir ed		/ Internal
1	Paper pen test/ Practical assessment		answer of q	g content, Stu uestions and		10				
	Al	DDITION	AL INSTRUC	CTIONS FOR	THE HO	OD/ FAC	CUL	TY (IF A	NY)	
	CD / 1									

List of Practical

• Practice of Cylindrical grinding on Grinding Machine

CO4:LO2

D.C.	DI / D' 1 T	T	~~	HELE EOD	LEADNING	ъ	,	0		10			_
KG.	PV (Diploma V Bhopal	Ving)	SC	OUTC	LEARNING OME	Brand Cod P05		Cours Code 501	C	CO ode <mark>04</mark>	Co 02	de	Format No. 4
COU	RSE NAME	PROD	UC	ΓΙΟΝ TECH	NOLOGY II				·				
COD	Description	Explai	in t	he types of	surface fini	shing	pro	cesses					
LO D	escription	To exp	plai	in different	types of sur	face 1	finis	hing p	roces	ses			
					SCHEME OF	STUI	ΟY						
S. No.	Learning C	Content		Teaching– Learning Method	Description Proces			Teach Hrs.	Pract Tut I		LR:	s quired	Remarks
1	Introduction, I Honing, Super finishing, Poli Buffing, Hot of Electroplating Galvanizing, I spraying	r- ishing, dipping	, ·	Traditional Lecture method	Teacher will ethe contents students. The will learn abovarious surfactinishing process.	studer out the)	10			Han Boo	dout, k	
•				SCI	HEME OF AS	SESSI	MEN	Τ					
S. No	Method of Assessment		D	escription of	Assessment			kimum arks		esour equir		Exter Inte	
1	Paper pen test	write	ai	_	g content, Stu uestions and			10	Te En sei	ogress st pap d meste am	oer/	Interna /Extern	
L	A	DDITIC)NA	AL INSTRUC	CTIONS FOR	THE I	HOD	/ FACU	JLTY	(IF A	NY))	

CO5·LO1

CO5:	LOI									
R	GPV (Diploma Bhop	_	SCHEME FOR OU	LEARNING TCOME	Branch Code P05			Co	LO ode <mark>1</mark>	Format No. 4
COL	JRSE NAME	PRODU	CTION TECHN	OLOGY II	11		,			
CO	Description	Explair	n the thread ar	ıd gear manu	ıfactur	ing proc	esses			
LO I	Description	To exp	lain different	types of thre	ad mar	nufactur	ing proces	sses.		
			S	SCHEME OF S	STUDY					
S. No.	Learning C	Content	Teaching— Learning Method	Description Proces		Teach Hrs.	Pract./ Tut Hrs.	LRs Requ	ired	Remarks
1	Thread Manus methods, Threa milling, Threa Thread grindi cutting on lath capstan/turret	ead ad rolling ng, Threa ne and	Lecture method +	Teacher will of the contents students. Stud- learn about va thread manufa processes	to lents wil arious		02	Hande Book, Mach Shop	,	
			SCH	EME OF ASS	ESSME	ENT				
S. N	Method of Assessment		Description of A	Assessment	N	Maximum Marks	Resour Requir			ternal / ternal
Paper pen test/ For the given learning content write answer of questions, Practical assessment				-	idents	10	Practica /Assign / End semeste	ment	Internologies /Exte	

ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)

exam

List of Practicals

- Practice of Thread Cutting on Lathe Machine
- Practice of Thread Cutting by Dies and Taps

CO5:LO2

\ 1			Branch Code P05	Course Code 501	e CO Code 05	LO Code <mark>02</mark>	Format No. 4
PRODU	CTION TE	CHNOLOGY	Y II		<u> </u>	1	I.
Explain t	he thread a	nd gear man	ufacturii	ng proc	esses		
I O Description							
1		• • • •			<i>O</i> 1		
Learning Content o.		Description of T-L Process		Teach Hrs.	Pract./ Tut Hrs.	LRs Required	Remarks
r pocesses, processes, Gear cutting by Gear ar ear	Traditional Lecture method	the contents to students. Stude learn about va	ents will rious	10		Handout, Book	
	S	SCHEME OF A	SSESSN	1ENT			
	Description of Assessment				Resources Required	External / Internal	
write a	ite answer of questions and fa			10	Progressive Test paper/ End semester exam	Internal / External	
	PRODUCE Explain to To explain the explain the explain to explain the expla	PRODUCTION TE Explain the thread a To explain different Content Teaching— Learning Method cturing r ocesses, processes, Gear cutting by Gear ar ear cesses Description of	PRODUCTION TECHNOLOGY Explain the thread and gear manual To explain different types of gear SCHEME Content Teaching— Learning Method Content Teaching— Description of Process Method Content Traditional Lecture method Traditional Lecture method Contents to students. Students	PRODUCTION TECHNOLOGY II Explain the thread and gear manufacturin To explain different types of gear manufacturin SCHEME OF STUD Content Teaching— Learning Method Cturing Traditional Lecture method Traditional Lecture method Traditional Lecture method SCHEME OF STUD Traditional Lecture method Traditional Lecture method Sudents. Students will learn about various Gear manufacturing processes SCHEME OF ASSESSM Description of Assessment To explain the thread and gear manufacturing Teacher will explain the contents to students. Students will learn about various Gear manufacturing processes SCHEME OF ASSESSM Description of Assessment Manufacturing processes SCHEME OF ASSESSM Manufacturing processes SCHEME OF ASSESSM Manufacturing processes Assessment Manufacturing content, Students write answer of questions and face	PRODUCTION TECHNOLOGY II Explain the thread and gear manufacturing proc To explain different types of gear manufacturing SCHEME OF STUDY Content Teaching— Learning Method Traditional Lecture method Traditional Teacher will explain the contents to students. Students will learn about various Gear manufacturing processes Gear cutting by Gear arread cesses SCHEME OF ASSESSMENT Description of Assessment Description of Assessment Maximum Marks For the given learning content, Students write answer of questions and face	PRODUCTION TECHNOLOGY II Explain the thread and gear manufacturing processes To explain different types of gear manufacturing processes. SCHEME OF STUDY Content Teaching—Learning Method Traditional Lecture method Traditional Lecture method Traditional Jean about various Gear manufacturing processes. Gear cutting by Gear manufacturing processes SCHEME OF ASSESSMENT Description of Assessment Tocesses Gear manufacturing processes SCHEME OF ASSESSMENT Description of Assessment Tocesses To explain the thread and gear manufacturing processes. SCHEME OF ASSESSMENT Description of Assessment Traditional Lecture method Traditio	PRODUCTION TECHNOLOGY II Explain the thread and gear manufacturing processes To explain different types of gear manufacturing processes. SCHEME OF STUDY Content Teaching—Learning Method Traditional Lecture method Traditional Cuturing or contents to students. Students will learn about various Gear manufacturing processes. SCHEME OF ASSESSMENT SCHEME OF ASSESSMENT Description of Assessment To explain the thread and gear manufacturing processes. SCHEME OF STUDY Traditional Lecture method Teacher will explain the contents to students. Students will learn about various Gear manufacturing processes SCHEME OF ASSESSMENT Description of Assessment Maximum Marks Resources Required Internal For the given learning content, Students write answer of questions and face Practical Viva Test paper/ External External Test paper/ External Test paper/ External

Reference Books:

- 1 Workshop Technology Vol. I & II by Hajra & Chaudhary
- 2 Production Technology by R. K. Jain (Khanna Publishers, Delhi).
- 3 Machine Tool Shilp Vigyan (Hindi) by P N Vijayvargiya (Deepak Prakashan, Morar Gwalior)
- Workshop Technology Vol. I and II by B. S. Raghuvanshi (Dhanpat Rai & Sons)
- 5 Manufacturing Technology by P. N. Rao (TMH).
- 6 Production Technology HMT Handbook (HMT)
- Workshop Technology Vol. II by Bawa H. S. (TMH).
- 8 Manufacturing Science and Technology Vol. I & II. by Suresh Dalela (Umesh Publication).
- 9 Production Technology by Jain Gupta, (Khanna Publishers, New Delhi)
- Manufacturing Processes by Begeman Amstead, (Wiley.)
- 11 Workshop Technology Vol. I, II and III by W.A.J. Chapman, (ELBS)
- Manufacturing Processes & Systems by Phillip F. Ostwald & Jairo Minoz (John Willey & Sons.)
- Manufacturing Processes by Rusinoff, (Tata McGraw Hill Publishing Co. Ltd.)
- 14 Advanced Manufacturing Technology by Kalpakjian (Addison Wesley)