PLANNED SYLLABUS COVERAGE

"PVCNSSK" G.P Bilaspur SYLLABUS		Department: Mechanical Engg. Subject – Manufacturing Technology-					
		Course - Diploma Duration – 3 Years					
		Total Pe	riods -56 Theo	ry –56 hours			
Sr No	Period Nos	Topic	Details	Instruction Reference	Additional Study Recommended	Remarks	
1	1-16	Turning	 1.1 Principles of turning 1.2 Description and function of main parts of lathe 1.3 Specification of lathe 1.4 Drives and transmission 1.5 Work holding devices 1.6 Lathe tools, tool signature, Single point cutting tool geometry 1.7 Lathe Operations-Plain and step turning, facing, parting off, taper turning, eccentric turning, drilling, reaming, boring, threading and knurling. 1.8 Cutting parameters-speed, feed and depth of cut 1.9 Speed ratio, preferred numbers of speed selection 1.10 Cutting fluid- its purpose and types 1.11 Lathe accessories (Steady rest, taper turning attachment, tool post grinder) 1.12 Brief description and applications of capstan and turret lathes. 	Production Technology by OP Khana Workshop Technology by R.S Khurmi			
2.	17-22	Drilling	 2.1 Principle of drilling 2.2 Classification of drilling machine and their description 2.3 Operations performed on drilling machines- drilling, reaming, counter boring, counter sinking, tapping. 2.4 Speeds and feeds in drilling and other operations. 2.5 Types of drills and their features 2.6 Drill holding and work holding devices. 	do			

SYLLABUS COVERAGE		Total Periods:56		Theory:56		
Sr No	Period Nos	Topic	Details	Instruction Reference	Additional Study	Remarks
3	23-28	Boring	 3.1 Principle of boring 3.2 Classification of boring machines and their description 3.3 Specification of boring machine 3.4 Boring tools 3.5 Boring bars and boring heads 3.6 Alignment of bores and its importance 	Workshop Technolog y by BS Raghuvans hi,	Recommenta	
4	29-38	Shaping, Planning and Slotting	 4.1 Working principle of shaper. planer and slotter 4.2 Quick return mechanism 4.3 Types of tools used and their geometry 4.4 Specifications of shaper, planer and slotting machine 4.5 Speeds and feeds in above 	Elements of Workshop Technolog y by SK Chaudhary		
5	39-56	Foundry Practices	 processes. 5.1 Pattern making 5.1.1 Types of patterns 5.1.2 Pattern materials 5.1.3 Pattern allowances 5.1.4 Colour coding of patterns 5.1.5 Introduction to cores 5.1.6 Core materials and types of cores 5.2 Moulding 5.2.1 Introduction to moulding 5.2.2 Types of moulding sand and additives, their properties 5.2.3 Sand mixing and mould preparation 5.2.4 Casting defects - causes and their remedies 	&Hajra,		
			5.3.1 Types of melting furnaces -: Pit furnace, Cupola, Reverberatory and Electric melting furnace 5.3.2 Closing and pouring of mould 5.4 Special casting methods			



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DATE :- 30/8/2022	cherno		