

"PVC" NSSK G.P Bilaspur at Kalol		Department: -MECHANICAL ENGG. (6 th Sem)		Subject- PPC		Remarks
		Course -DIPLOMA		Duration -3 Years		
SYLLABUS COVERAGE		Total Periods-56		Theory -56		
Sr No	Period No's	Topic	Details	Instruction Reference	Additional Study Recommended	
1	1-5	Production Planning and Control	Types of production. - Job, batch and mass production , Concept of planning, scheduling, routing, dispatching and follow up ,Break even analysis and Gantt chart	Industrial Engineering and Management by T.R. Banga and SC Sharma (Khanna Publishers) & Industrial Engineering and Management by O.P. Khanna; (Dhanpat Rai and Sons)		
2	6-12	Plant Location and Layout	Definition , Factors affecting the site selection of plant , Factors affecting plant layout , Types of layout - Process, product, combination and fixed position, layout patterns , Techniques of making layout - Flow diagram, templates, distance volume matrix, travel chart.			
3	13-23	Work Study	Definition, advantages and procedure of Work study , Difference between production and Productivity, measures to improve productivity, Method study - Definition, Objectives and Procedure , Symbols, Flow process chart, Flow diagram, Machine chart, Two hand chart, Principles of motion economy, Therblig symbols, Simo chart , Work Measurement - Time study, definition, principle and method of time study , Stop watch study - Number of readings, calculation of basic time, rating techniques, normal time, allowance, standard time.	----do---		
4	24-32	Inventory Control	Material purchasing, store keeping, functions and duties of store department, Definition of inventory, Types of inventory , ABC analysis , Procurement cost, carrying charges, lead-time, reorder point, Economic	----do---		

			ordering quantity, simple numerical problems, Codification and standardization ,Concept of JIT.			
5	33-39	Inspection and Quality Control	Inspection needs, types of inspection, stages of inspection, Statistical quality control ,Process capability , Control charts for variables – X and R chart, control chart for fraction defectives (P chart), control chart for number of defects (C chart) , Concept of ISO 9000, ISO 14000 and , QC tools.	----do---		
6	40-45	Material Handling	Principles of material handling, Hoisting equipment - Fork lift truck, cranes , Conveying equipment - Package conveyor, gravity roller conveyors, screw conveyors, flight or scraper conveyors, bucket conveyors, bucket elevators, belt conveyors, and pneumatic conveyors, Work station design.	----do---		
7	46-50	Repair and maintenance	Objectives and importance of maintenance , Different types of maintenance , Nature of maintenance problem , Range of maintenance activities , Procedure of preventive maintenance ,Schedules of preventive maintenance , Advantages of preventive maintenance.	----do---		
8	51-56	Cost estimation and control	Functions of cost estimation , Estimation procedure , Elements of cost, ladder of costs , Depreciation-concept and methods of calculating depreciation , Overhead expanses , Cost control - capital cost control (planning and scheduling) operating cost control.	----do---		

Approved	HOD Sign.
Date	<i>[Signature]</i> 02-03-2029