GOVERNMENT POLYTECHNIC, KORAPUT

DEPARTMENT OF MECHANICAL ENGINEERING

Discipline: **MECHANICAL ENGG**	Semester: **6TH**	Name of the Teaching Faculty: M. KRISHNA RAO
Subject: **INDUSTRIAL ENGG. & MANAGEMENT**	No. of days/per week class allotted: **4**	Semester From date: 20/1/21. To Date: 03/6/21. No. of Weeks:

COURSE OUTCOMES

CO1: UNDERSTAND THE BASIC CONCEPT ABOUT PLANT SETUP & MACHINES.
CO2: OPTIMIZING RESOURCE UTILIZATIONS & IMPROVING PRODUCTIVITY.
CO3: UNDERSTAND STOCK MANAGEMENT & MAINTENANCE OF PLANT.
CO4: USE CHARTS TO RECORD THE QUALITY OF PRODUCTS.
CO5: HOW TO ELIMINATE UNPRODUCTIVE ACTIVITIES & UNDERSTANDING DESIGN OF PRODUCTS & PROCESSES.

Week	Class Day	Theory/Practical Topics
1ST	1ST	SELECTION OF INDUSTRY SITE, PLANT LAYOUT-OBJ. & PRINCIPLES
	2ND	EXPLAIN PROCESS, PRODUCT & COMBINATION LAYOUT
	3RD	TECHNIQUES TO IMPROVE LAYOUT
	4TH	PRINCIPLES OF MATERIAL HANDLING EQUIPMENT
2ND	1ST	PLANT MAINTENANCE
	2ND	PLANT MAINTENANCE (CONTD…)
	3RD	IMPORTANCE OF PLANT MAINTENANCE
	4TH	BREAKDOWN MAINTENANCE
3RD	1ST	PREVENTIVE MAINTENANCE & SCHEDULED MAINTENANCE
	2ND	QUIZ & ASSIGNMENT - 1
	3RD	INTRODUCTION TO OPERATIONS RESEARCH & ITS APPLICATIONS
	4TH	DEFINE LINEAR PROGRAMMING PROBELM
4TH	1ST	SOLUTION OF LPP BY GRAPHICAL METHOD
	2ND	SOLUTION OF LPP BY GRAPHICAL METHOD (CONTD…)
	3RD	EVALUATION OF PROJECT COMPLETION TIME BY CPM & PERT
	4TH	EVALUATION OF PROJECT COMPLETION TIME BY CPM & PERT (CONTD….)
5TH	1ST	EXPLAIN DISTINCT FEATURES OF PERT W.R.T CPM
	2ND	EXPLAIN DISTINCT FEATURES OF PERT W.R.T CPM
	3RD	REVISION
	4TH	QUIZ & ASSIGNMENT - II
6TH	1ST	CLASSIFICATION OF INVENTORY
	2ND	OBJECTIVE OF INVENTORY CONTROL
	3RD	DESCRIBE THE FUNCTIONS OF INVENTORIES
	4TH	BENEFITS OF INVENTORY CONTROL
7TH	1ST	COSTS ASSOSCIATED WITH INVENTORY
	2ND	TERMINOLOGY IN INVENTORY CONTROL
	3RD	EXPLAIN & DERIVE ECONOMIC ORDER QUANTITY (EOQ)
	4TH	EXPLAIN & DERIVE EOQ FOR BASIC MODEL (CONTD…)
8TH	1ST	DEFINE & EXPLAIN ABC ANALYSIS
	2ND	QUIZ & ASSIGNMENT - III
	3RD	DEFINE INSPECTION & QUALITY CONTROL
	4TH	DESCRIBE PLANNING OF INSPECTION

9TH	1ST	DESCRIBE TYPES OF INSPECTION
	2ND	ADVANTAGES & DISADVANTAGES OF QUALITY CONTROL
	3RD	STUDY OF FACTORS INFLUENCNG QUALITY OF MANUFACTURE
	4TH	EXPLAIN STATISTICAL QUALITY CONTROL, CONTROL CHARTS
10TH	1ST	CONTROL CHARTS (X, R, P & C CHARTS) (CONTD…)
	2ND	METHOD OF ATTRIBUTES
	3RD	CONCEPT OF ISO 9001 - 2008
	4TH	QUALITY MANAGEMENT SYSTEM
11TH	1ST	REGISTRATION/CERTIFICATION PROCEDURE
	2ND	BENEFITS OF ISO TO THE ORGANISATION
	3RD	JIT, 6 SIGMA, 7S, LEAN MANUFACTURING
	4TH	NUMERICALS
12TH	1ST	QUIZ & ASSIGNMENT - IV
	2ND	INTRODUCTION OF PRODUCTION PLANNING & CONTROL
	3RD	MAJOR FUNCTIONS OF PRODUCTION PLANNING & CONTROL
	4TH	METHODS OF FORECASTING
13TH	1ST	ROUTING
	2ND	SCHEDULING
	3RD	DISPATCHING
	4TH	CONTROLLING
14TH	1ST	TYPES OF PRODUCTION
	2ND	MASS PRODUCTION
	3RD	BATCH PRODUCTION
	4TH	JOB ORDER PRODUCTION
15TH	1ST	PRINCIPLES OF PRODUCT & PROCESS PLANNING
	2ND	QUIZ & ASSIGNMENT - V
	3RD	REVISION
	4TH	REVISION

LEARNING RESOURCES:

INDUSTRIAL ENGINEERING & MANAGEMENT, O.P KHANNA, DHANPAT RAI & SONS.

INDUSTRIAL ENGINEERING & PRODUCTION MANAGEMENT, MART & TELSANG, S.CHAND

STATISTICAL QUALITY CONTROL, M. MAHAJAN, DHANPAT RAI & SONS

WEBSITE RESOURCES:

Sign. Of Faculty concerned

Sharmila Rat
Sign. Of HOD I/C

Principal