



**GOVERNMENT POLYTECHNIC, KORAPUT**  
**DEPARTMENT OF MECHANICAL ENGINEERING**

Discipline: <b>MECHANICAL ENGG</b>	Semester: <b>6<sup>TH</sup></b>	Name of the Teaching Faculty: <b>M. KRISHNA RAO</b>
Subject: <b>INDUSTRIAL ENGG. &amp; MANAGEMENT</b>	No. of days/per week class allotted: <b>4</b>	Semester From date: <b>20/11/21</b> . To Date: <b>03/01/22</b> .  No. of Weeks:
<b>COURSE OUTCOMES</b>	<b>CO1: UNDERSTAND THE BASIC CONCEPT ABOUT PLANT SETUP &amp; MACHINES.</b> <b>CO2: OPTIMIZING RESOURCE UTILIZATIONS &amp; IMPROVING PRODUCTIVITY.</b> <b>CO3: UNDERSTAND STOCK MANAGEMENT &amp; MAINTENANCE OF PLANT.</b> <b>CO4: USE CHARTS TO RECORD THE QUALITY OF PRODUCTS.</b> <b>CO5: HOW TO ELIMINATE UNPRODUCTIVE ACTIVITIES &amp; UNDERSTANDING DESIGN OF PRODUCTS &amp; PROCESSES.</b>	
<b>Week</b>	<b>Class Day</b>	<b>Theory/Practical Topics</b>
<b>1<sup>ST</sup></b>	<b>1<sup>ST</sup></b>	<b>SELECTION OF INDUSTRY SITE, PLANT LAYOUT-OBJ. &amp; PRINCIPLES</b>
	<b>2<sup>ND</sup></b>	<b>EXPLAIN PROCESS, PRODUCT &amp; COMBINATION LAYOUT</b>
	<b>3<sup>RD</sup></b>	<b>TECHNIQUES TO IMPROVE LAYOUT</b>
	<b>4<sup>TH</sup></b>	<b>PRINCIPLES OF MATERIAL HANDLING EQUIPMENT</b>
<b>2<sup>ND</sup></b>	<b>1<sup>ST</sup></b>	<b>PLANT MAINTENANCE</b>
	<b>2<sup>ND</sup></b>	<b>PLANT MAINTENANCE (CONTD...)</b>
	<b>3<sup>RD</sup></b>	<b>IMPORTANCE OF PLANT MAINTENANCE</b>
	<b>4<sup>TH</sup></b>	<b>BREAKDOWN MAINTENANCE</b>
<b>3<sup>RD</sup></b>	<b>1<sup>ST</sup></b>	<b>PREVENTIVE MAINTENANCE &amp; SCHEDULED MAINTENANCE</b>
	<b>2<sup>ND</sup></b>	<b>QUIZ &amp; ASSIGNMENT - 1</b>
	<b>3<sup>RD</sup></b>	<b>INTRODUCTION TO OPERATIONS RESEARCH &amp; ITS APPLICATIONS</b>
	<b>4<sup>TH</sup></b>	<b>DEFINE LINEAR PROGRAMMING PROBELM</b>
<b>4<sup>TH</sup></b>	<b>1<sup>ST</sup></b>	<b>SOLUTION OF LPP BY GRAPHICAL METHOD</b>
	<b>2<sup>ND</sup></b>	<b>SOLUTION OF LPP BY GRAPHICAL METHOD (CONTD...)</b>
	<b>3<sup>RD</sup></b>	<b>EVALUATION OF PROJECT COMPLETION TIME BY CPM &amp; PERT</b>
	<b>4<sup>TH</sup></b>	<b>EVALUATION OF PROJECT COMPLETION TIME BY CPM &amp; PERT (CONTD...)</b>
<b>5<sup>TH</sup></b>	<b>1<sup>ST</sup></b>	<b>EXPLAIN DISTINCT FEATURES OF PERT W.R.T CPM</b>
	<b>2<sup>ND</sup></b>	<b>EXPLAIN DISTINCT FEATURES OF PERT W.R.T CPM</b>
	<b>3<sup>RD</sup></b>	<b>REVISION</b>
	<b>4<sup>TH</sup></b>	<b>QUIZ &amp; ASSIGNMENT - II</b>
<b>6<sup>TH</sup></b>	<b>1<sup>ST</sup></b>	<b>CLASSIFICATION OF INVENTORY</b>
	<b>2<sup>ND</sup></b>	<b>OBJECTIVE OF INVENTORY CONTROL</b>
	<b>3<sup>RD</sup></b>	<b>DESCRIBE THE FUNCTIONS OF INVENTORIES</b>
	<b>4<sup>TH</sup></b>	<b>BENEFITS OF INVENTORY CONTROL</b>
<b>7<sup>TH</sup></b>	<b>1<sup>ST</sup></b>	<b>COSTS ASSOCIATED WITH INVENTORY</b>
	<b>2<sup>ND</sup></b>	<b>TERMINOLOGY IN INVENTORY CONTROL</b>
	<b>3<sup>RD</sup></b>	<b>EXPLAIN &amp; DERIVE ECONOMIC ORDER QUANTITY (EOQ)</b>
	<b>4<sup>TH</sup></b>	<b>EXPLAIN &amp; DERIVE EOQ FOR BASIC MODEL (CONTD...)</b>
<b>8<sup>TH</sup></b>	<b>1<sup>ST</sup></b>	<b>DEFINE &amp; EXPLAIN ABC ANALYSIS</b>
	<b>2<sup>ND</sup></b>	<b>QUIZ &amp; ASSIGNMENT - III</b>
	<b>3<sup>RD</sup></b>	<b>DEFINE INSPECTION &amp; QUALITY CONTROL</b>
	<b>4<sup>TH</sup></b>	<b>DESCRIBE PLANNING OF INSPECTION</b>

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

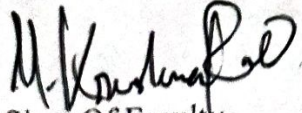
**LEARNING RESOURCES:**

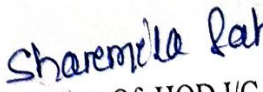
INDUSTRIAL ENGINEERING & MANAGEMENT, O.P KHANNA, DHANPAT RAI & SONS.

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

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

**WEBSITE RESOURCES:**

  
Sign. Of Faculty  
concerned

  
Sign. Of HOD /C

  
Principal