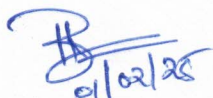


<b>Discipline:</b> <b><u>MECHANICAL</u></b>	<b>Semester:</b> <b><u>6th</u></b>	<b>Name of the Teaching</b> <b>Faculty: <u>ER. LITU BEHERA</u></b> <b><u>Lecturer Mechanical</u></b>
<b>Subject:</b> <b>INDUSTRIAL ENGINEERING &amp; MANAGEMENT</b>	<b>No. of days/per week class allotted:</b>  <b>4</b>	<b>Semester From</b> <b>date: 04/02/2025</b>  <b>To date: 17/05/2025</b>  <b>No of weeks: 15</b>
<b>Week</b>	<b>Class Day</b>	<b>Theory Topics:</b>
<b>1<sup>st</sup></b>	<b>1<sup>st</sup></b>	PLANT ENGINEERING: 1.1 Selection of Site of Industry.
	<b>2<sup>nd</sup></b>	1.2 Define plant layout.
	<b>3<sup>rd</sup></b>	1.3 Describe the objective of plant layout.
	<b>4<sup>th</sup></b>	1.2 Describe the principles of plant layout.
<b>2<sup>nd</sup></b>	<b>1<sup>st</sup></b>	1.4 Explain Process Layout.
	<b>2<sup>nd</sup></b>	1.4 Explain Product Layout.
	<b>3<sup>rd</sup></b>	1.4 Explain Combination Layout.
	<b>4<sup>th</sup></b>	1.5 Techniques to improve layout.
<b>3<sup>rd</sup></b>	<b>1<sup>st</sup></b>	1.6 Principles of material handling equipment.
	<b>2<sup>nd</sup></b>	1.7 Plant maintenance.
	<b>3<sup>rd</sup></b>	1.7.1 Importance of plant maintenance.
	<b>4<sup>th</sup></b>	1.7.2 Break down maintenance.
<b>4<sup>th</sup></b>	<b>1<sup>st</sup></b>	1.7.3 Preventive maintenance.
	<b>2<sup>nd</sup></b>	1.7.4 Scheduled maintenance.
	<b>3<sup>rd</sup></b>	Revision of Chapter-2
	<b>4<sup>th</sup></b>	Previous year question solutions
<b>5<sup>th</sup></b>	<b>1<sup>st</sup></b>	OPERATIONS RESEARCH: 2.1 In:roduction to Operations Research and its applications.
	<b>2<sup>nd</sup></b>	2.2 Define Linear Programming Problem, 2.3Solution of L.P.P. by graphical method.
	<b>3<sup>rd</sup></b>	2.4 Evaluation of Project completion time by Critical Path Method and PERT (Simple problems)
	<b>4<sup>th</sup></b>	2.5Explain distinct features of PERT with respect to CPM.


  
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6 <sup>th</sup>	1 <sup>st</sup>	Revision of Chapter-2
	2 <sup>nd</sup>	Previous year question solutions
	3 <sup>rd</sup>	INVENTORY CONTROL: 3.1 Classification of inventory.
	4 <sup>th</sup>	3.2 Objective of inventory control.
7 <sup>th</sup>	1 <sup>st</sup>	3.3 Describe the functions of inventories.
	2 <sup>nd</sup>	3.4 Benefits of inventory control.
	3 <sup>rd</sup>	3.5 Costs associated with inventory.
	4 <sup>th</sup>	3.6 Terminology in inventory control
8 <sup>th</sup>	1 <sup>st</sup>	3.7 Explain and Derive economic order quantity for Basic model. (Solve numerical)
	2 <sup>nd</sup>	3.8 Define and Explain ABC analysis.
	3 <sup>rd</sup>	Revision of Chapter-3
	4 <sup>th</sup>	Previous year question solutions
9 <sup>th</sup>	1 <sup>st</sup>	INSPECTION AND QUALITY CONTROL: 4.1 Define Inspection and Quality control.
	2 <sup>nd</sup>	4.2 Describe planning of inspection.
	3 <sup>rd</sup>	4.3 Describe types of inspection.
	4 <sup>th</sup>	4.4 Advantages and disadvantages of quality control.
10 <sup>th</sup>	1 <sup>st</sup>	4.5 Study of factors influencing the quality of manufacture.
	2 <sup>nd</sup>	4.6 Explain the Concept of statistical quality control, Control charts (X, R, P and C - charts).
	3 <sup>rd</sup>	4.7 Methods of attributes.
	4 <sup>th</sup>	4.8 Concept of ISO 9001-2008.

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11 <sup>th</sup>	1 <sup>st</sup>	4.9.1 Quality management system, Registration /certification procedure.
	2 <sup>nd</sup>	4.9.2 Benefits of ISO to the organization.
	3 <sup>rd</sup>	4.9.3 JIT, Six sigma, 7S, Lean manufacturing
	4 <sup>th</sup>	4.9.4 Solve related problems.
12 <sup>th</sup>	1 <sup>st</sup>	Revision of Chapter-4
	2 <sup>nd</sup>	Previous year question solutions
	3 <sup>rd</sup>	PRODUCTION PLANNING AND CONTROL 5.1 Introduction
	4 <sup>th</sup>	5.2 Major functions of production planning and control
13 <sup>th</sup>	1 <sup>st</sup>	5.3 Methods of forecasting
	2 <sup>nd</sup>	5.3.1 Routing
	3 <sup>rd</sup>	5.3.2 Scheduling
	4 <sup>th</sup>	5.3.3 Dispatching
14 <sup>th</sup>	1 <sup>st</sup>	5.3.4 Controlling
	2 <sup>nd</sup>	5.4 Types of production
	3 <sup>rd</sup>	5.4.1 Mass production
	4 <sup>th</sup>	5.4.2 Batch production
15 <sup>th</sup>	1 <sup>st</sup>	5.4.3 Job order production
	2 <sup>nd</sup>	5.5 Principles of product and process planning.
	3 <sup>rd</sup>	Revision of Chapter-5
	4 <sup>th</sup>	Previous year question solutions

  
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