

KALAM INSTITUTE OF TECHNOLOGY (P), BERHAMPUR

LESSON PLAN

DISCIPLINE	SEMESTER 5 th	NAME OF THE FACULTY
SUBJECT	NO. OF DAY/ WEEK CLASS ALLOTTED	SEMESTER FROM DATE: TO DATE:
Mechatronics	4	NO. OF WEEKS: 15
WEEK	CLASS/DAY	THEORY/ PRACTICAL TOPIC
1	1 01-08-2020	Definition of Mechatronics.
	2 02-08-20	Advantages & disadvantages of Mechatronics.
	3 03-08-20	Application of Mechatronics.
	4 04-08-20	scope of Mechatronics in Industrial Sector.
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2	1 05-08-20	Components & Importance of Mechatronics system.
	2 10-08-20	Definition of Transducers
	3 12-08-20	Classification of Transducers
	4 16-08-20	Electromechanical Transducers.
	5	
3	1 18-08-20	Electromechanical Transducers.
	2 19-08-20	Transducers Actuating Mechanism.
	3 22-08-20	Transducers Actuating Mechanism.
	4 23-08-20	Displacement & position Sensors.
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4	1 24-08-20	Velocity and Motion Sensors.
	2 25-08-20	Force & pressure Sensors.
	3 26-08-20	Temperature and Light Sensors.
	4 29-08-20	Machine, Kinematic Link, Kinematic Pair, Mechanism.
	5	
5	1 31-08-20	Slider crank Mechanism, Mechanisms, Gears, Belt & Belt Drive.
	2 02-09-20	Bearings, Switches and relay.
	3 05-09-20	Solenoid
	4 07-09-20	D.C. Motors
	5	
6	1 08-09-20	Stepper Motors
	2 09-09-20	A.C. Motors.
	3 12-09-20	specification and control of Stepper Motors.
	4 13-09-20	Servo Motors D.C & A.C.
	5	
7	1 16-09-20	Servo Motors D.C & A.C
	2 21-09-20	Introduction of PLC
	3 22-09-20	Advantages of PLC
	4 26-09-20	Selection of PLC
	5	
8	1 28-09-20	uses of PLC
	2 03-10-20	uses of PLC
	3 05-10-20	Architecture basic Internal Structures.
	4 11-10-20	Architecture basic Internal Structures.
	5	

WEEK	CLASS/DAY	THEORY/ PRACTICAL TOPIC
9	1 13-10-2023	Input/output processing and programming.
	2 17-10-2023	Input/output processing and programming.
	3 18-10-2023	Input/output processing and programming.
	4 20-10-2023	Mnemonics.
	5	
10	1 31-10-2023	Mnemonics.
	2 01-11-2023	Master Controllers.
	3 02-11-2023	Master Controllers.
	4 03-11-2023	Jump Controllers.
	5	
11	1 04-11-2023	NC Machines
	2 07-11-2023	CNC Machines
	3 09-11-2023	CAD
	4 10-11-2023	CAM
	5	
12	1 11-11-2023	Software and hardware for cad/cam
	2 14-11-2023	Function of CAD/CAM system.
	3 15-11-2023	Features and Characteristics of CAD/CAM system.
	4 16-11-2023	Application areas for CAD/CAM.
	5	
13	1 17-11-2023	Introduction to CNC Machines.
	2 21-11-2023	Machine structure.
	3 23-11-2023	Introduction and types of guideways.
	4 24-11-2023	Factors of design of guideways.
	5	
14	1 28-11-2023	Spindle drives.
	2 29-11-2023	Feed drive.
	3 01-12-2023	Spindle and Spindle bearings.
	4 02-12-2023	Definition, Function and kinds of robotics.
	5	
15	1 05-12-2023	Types of Industrial robots.
	2 07-12-2023	Robotic systems.
	3 08-12-2023	Robotic systems.
	4 09-12-2023	Advantages and Disadvantages of robots.
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KALAM INSTITUTE OF TECHNOLOGY, BERHAMPUR

LESSON PLAN

DISCIPLINE:	SEMESTER:	NAME OF THE TEACHING FACULTY: B. Venkata Rao			
SUBJECT:	NO. OF CLASSES ALLOTTED PER WEEK:	SEMESTER FROM DATE: 16/1/24 TO DATE: 26/4/24.			
Ind. Engg & Management	5	BRANCH- Mech. Engg SEC-			
WEEKS	CLASS DAYS	DATE	UNIT	THEORY	REMARK
1st	1st	16/1/24	1	Introduction	
	2nd	17/1/24		Plant Engg:- Selection of site	
	3rd	18/1/24		plant layout, objectives	
	4th	19/1/24		principles of plant layout	
	5th				
2nd	1st	22/1/24		Process layout	
	2nd	24/1/24		Product layout,	
	3rd	25/1/24		Combination layout	
	4th				
	5th				
3rd	1st	29/1		Techniques to improve layout	
	2nd	30/1		Principles of material handling sys.	
	3rd	31/1		plant Maintenance, Importance	
	4th	1/2		Break down Maintenance	
	5th	2/2		preventive Maintenance	
4th	1st	5/2		Scheduled Maintenance	
	2nd	6/2	2	Operation Research- Intro	
	3rd	7/2		Linear programming -	
	4th	8/2		problems solved	
	5th	9/2		Problems Solved.	
5th	1st	12/2		L. P. Problems by & graphically	
	2nd	13/2	-	CPM	
	3rd	15/2		CPM	
	4th	16/2		PERT	
	5th				
6th	1st	19/2		Problems	
	2nd	20/2		Problems	
	3rd	21/2		Difference bet ⁿ CPM & PERT	
	4th	22/2	3	Inventory control- Intro	
	5th	23/2		classification of Inventory	
7th	1st	26/2		Objectives of Inventory Control	
	2nd	27/2		Function of Inventories.	
	3rd	28/2		Benefits of Inventory Control	
	4th	29/2		Costs associated with Inventory	
	5th	1/3		Terminology in I. C	
8th	1st	4/3		Economic order quantity	
	2nd	6/3		Problems	
	3rd	7/3		Problems	
	4th	11/3			
	5th				

9th	1st	11/3	4	ABC analysis	
	2nd	12/3		Inspection and Quality Control.	
	3rd	13/3		Planning of Inspection.	
	4th	14/3		Types of Inspection	
	5th	15/3		-do-	
10th	1st	18/3		Adv. & dis. adv of Quality Control.	
	2nd	17/3		Study of factors influencing Q.C	
	3rd	20/3		Concept of Statistical Quality Control	
	4th	21/3		X, R charts	
	5th	22/3		p and c charts.	
11th	1st	22/3		Methods of attributes.	
	2nd	28/3		Concept of ISO 9001-2008	
	3rd				
	4th				
	5th				
12th	1st	2/4		Quality Management System	
	2nd	3/4		Registration / Certification System.	
	3rd	4/4		Benefits of ISO to the Organization.	
	4th	5/4		JIT, Six Sigma	
	5th				
13th	1st	8/4	5	7S, lean manufacturing	
	2nd	9/4		problems	
	3rd	10/4		problems	
	4th	12/4		Production planning and Control.	
	5th				
14th	1st	15/4		Major functions	
	2nd	16/4		Methods forecasting	
	3rd	18/4		scheduling	
	4th	19/4		Dispatching, Controlling	
	5th				
15th	1st	22/4		Types of production - Mass	
	2nd	23/4		batch production.	
	3rd	24/4		Job order production	
	4th	25/4		principles of product and	
	5th	26/4		-do- process planning	
16th	1st				
	2nd				
	3rd				
	4th				
	5th				


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