

### LESSON PLAN: MECHATRONICS WINTER SEMESTER 2022

Discipline: Mechanical Engg.	Semester: 5th	Name of the Teaching Faculty: Anirudha Tarai
Subject: Mechatronics	No. of days/Week class allotted: 4	Semester From date:15-09-2022 To Date: 22-12-2022 No. of Weeks: 15
Week	Class Day	Theory Topics
1st	1st	Set induction about the subject,objectives,question pattern
	2nd	Unit-1(INTRODUCTION TO MECHATRONICS): Introduction & Definition of Mechatronics,Chalk board summary
	3rd	MILEY,Advantages & disadvantages of Mechatronics,Chalk board summary
	4th	MILEY,Application of Mechatronics,Chalk board summary
2nd	1st	MILEY,Scope of Mechatronics in Industrial Sector,Chalk board summary
	2nd	MILEY,Components of a Mechatronics System,Chalk board summary
	3rd	MILEY,Importance of mechatronics in automation ,Chalk board summary
	4th	MILEY,Video presentation,Assignments,Questions and Answers session
3rd	1st	Unit-2(SENSORS AND TRANSDUCERS):Introduction & Definitionm of Transducers,Chalk board summary
	2nd	MILEY,Classification of Transducers,Chalk board summary
	3rd	MILEY,Electromechanical Transducers,Chalk board summary
	4th	MILEY,Transducers Actuating Mechanisms,Chalk board summary
4th	1st	MILEY,Displacement &Positions Sensors,Chalk board summary
	2nd	MILEY,Velocity, motion, force and pressure sensors ,Chalk board summary
	3rd	MILEY,Temperature and light sensors,Chalk board summary
	4th	MILEY,Video presentation,Assignments,Questions and Answers session
5th	1st	Unit-3(ACTUATORS-MECHANICAL, ELECTRICAL):Introduction of Mechanical Actuators,Chalk board summary
	2nd	MILEY,Machine, Kinematic Link, Kinematic Pair,Chalk board summary
	3rd	MILEY,Mechanism,Slider crank Mechanism,Chalk board summary
	4th	MILEY,Gear Drive, Spur gear, Bevel gear, Helical gear, worm gear,Chalk board summary
6th	1st	MILEY,Belt & Belt drive,Bearings,Chalk board summary
	2nd	MILEY,Electrical Actuator,Switches and relay,Chalk board summary
	3rd	MILEY,Solenoid,D.C Motors,A.C Motors,Chalk board summary
7th	1st	MILEY,Stepper Motors,Specification and control of stepper motors,Servo Motors D.C & A.C,Chalk board summary
	2nd	MILEY,Video presentation,Assignments,Questions and Answers session
	3rd	MILEY,Selection and uses of PLC,Chalk board summary
8th	1st	Unit-4(PROGRAMMABLE LOGIC CONTROLLERS(PLC)):Introduction of PLC,Chalk board summary
	2nd	,Chalk board summary
	3rd	MILEY,Advantages of PLC,Chalk board summary
	4th	MILEY,Architecture basic internal structures,Chalk board summary
9th	1st	MILEY,Input/output Processing and Programming,Chalk board summary
	2nd	



	3rd	MILEY,Mnemonics,Chalk board summary
	4th	MILEY,Master and Jump Controllers,Chalk board summary
10th	1st	MILEY,Video presentation,Assignments,Questions and Answers session
	2nd	Unit-5(ELEMENTS OF CNC MACHINES):Introduction to Numerical Control of machines and CAD/CAM,
	3rd	MILEY,NC machines,CNC machines, Chalk board summary
	4th	MILEY,NC machines,CNC machines, Chalk board summary
11th	1st	MILEY,CAD/CAM,Chalk board summary
	2nd	MILEY,CAD/CAM,Chalk board summary
	3rd	MILEY,Software and hardware for CAD/CAM,Chalk board summary
	4th	MILEY,Software and hardware for CAD/CAM,Chalk board summary
12th	1st	MILEY,Functioning of CAD/CAM system,Chalk board summary
	2nd	MILEY,Functioning of CAD/CAM system,Chalk board summary
	3rd	MILEY,Features and characteristics of CAD/CAM system,Chalk board summary
	4th	MILEY,Features and characteristics of CAD/CAM system,Chalk board summary
13th	1st	MILEY,Application areas for CAD/CAM,Chalk board summary
	2nd	MILEY,Elements of CNC machines,Introduction,Machine Structure,Chalk board summary
	3rd	MILEY,Elements of CNC machines,Introduction,Machine Structure,Chalk board summary
	4th	MILEY,Introduction and Types of Guideways,Factors of design of guidewaysChalk board summary
14th	1st	MILEY,Introduction and Types of Guideways,Factors of design of guidewaysChalk board summary
	2nd	MILEY,Spindle drives,Feed drive,Spindle and Spindle Bearings,Chalk board summary
	3rd	MILEY,Video presentation,Assignments,Questions and Answers session
	4th	Unit-6(ROBOTICS):Definition, Function and laws of robotics,Chalk board summary
15th	1st	MILEY,Types of industrial robots,Chalk board summary
	2nd	MILEY,Robotic systems,Chalk board summary
	3rd	MILEY,Advantages and Disadvantages of robots,Chalk board summary
	4th	MILEY,Video presentation,Assignments,Questions and Answers session

*[Signature]*

Sign. Of Faculty Concerned

*[Signature]*  
12/10/22  
Sign of HOD

Sign og Principal

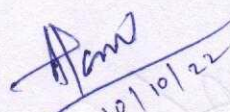
*[Signature]*  
12/10/2022

Principal  
Govt. Polytechnic  
Kaiahandi



**LESSON PLAN: HM & IPF LAB WINTER SEMESTER 2022**

Discipline: <b>Mechanical Engineering</b>	Semester: <b>5<sup>TH</sup></b> Winter 2022	Name of the teaching faculty: <b>Aurobinda Biswas</b>
Subject: <b>HM &amp; IPF Lab</b>	No of days/per week class allotted: <b>04</b>	Semester From Date: <b>15/09/2022</b> To Date: <b>22/12/2022</b> No of weeks: <b>14</b>
<b>Week:</b>	<b>Class day:</b>	<b>Theory/practical topics:</b>
1 <sup>ST</sup>	1 <sup>ST</sup>	Performance test on impulse turbine and to find out the efficiency.
	2 <sup>ND</sup>	Doubt clear lab class.
	3 <sup>RD</sup>	Doubt clear lab class.
	4 <sup>TH</sup>	Viva voce test-1 (experiment-1).
2 <sup>ND</sup>	1 <sup>ST</sup>	Performance test on Kaplan turbine and to find out the efficiency.
	2 <sup>ND</sup>	Doubt clear lab class.
	3 <sup>RD</sup>	Doubt clear lab class.
	4 <sup>TH</sup>	Viva voce test-1 (experiment-2).
3 <sup>RD</sup>	1 <sup>ST</sup>	Performance test on Francis turbine and to find out the efficiency.
	2 <sup>ND</sup>	Doubt clear lab class.
	3 <sup>RD</sup>	Doubt clear lab class.
	4 <sup>TH</sup>	Viva voce test-1 (experiment-3).
4 <sup>TH</sup>	1 <sup>ST</sup>	Performance test on centrifugal pump and to find out the characteristic curves.
	2 <sup>ND</sup>	Doubt clear lab class.
	3 <sup>RD</sup>	Doubt clear lab class.
	4 <sup>TH</sup>	Viva voce test-1 (experiment-4).
5 <sup>TH</sup>	1 <sup>ST</sup>	Direct operation of single & double acting pneumatic cylinder.
	2 <sup>ND</sup>	Doubt clear lab class.
	3 <sup>RD</sup>	Doubt clear lab class.
	4 <sup>TH</sup>	Viva voce test-1 (experiment-5).
6 <sup>TH</sup>	1 <sup>ST</sup>	Operating double acting pneumatic cylinder with quick exhaust valve.
	2 <sup>ND</sup>	Doubt clear lab class.
	3 <sup>RD</sup>	Doubt clear lab class.
	4 <sup>TH</sup>	Viva voce test-1 (experiment-6).
7 <sup>TH</sup>	1 <sup>ST</sup>	Speed control double acting pneumatic cylinder using metering in and metering out circuits.

  
10/10/22  
Principal  
Govt. Polytechnic  
Kalahandi



	2 <sup>ND</sup>	Doubt clear lab class.
	3 <sup>RD</sup>	Doubt clear lab class.
	4 <sup>TH</sup>	Viva voce test-1 (experiment-7).
8 <sup>TH</sup>	1 <sup>ST</sup>	Direct operation of single & double acting hydraulic cylinder.
	2 <sup>ND</sup>	Doubt clear lab class.
	3 <sup>RD</sup>	Doubt clear lab class.
	4 <sup>TH</sup>	Viva voce test-1 (experiment-8).
9 <sup>TH</sup>	1 <sup>ST</sup>	Direct operation of hydraulic motor.
	2 <sup>ND</sup>	Doubt clear lab class.
	3 <sup>RD</sup>	Doubt clear lab class.
	4 <sup>TH</sup>	Viva voce test-1 (experiment-9).
10 <sup>TH</sup>	1 <sup>ST</sup>	Speed control double acting hydraulic cylinder using metering in & metering out circuits.
	2 <sup>ND</sup>	Doubt clear lab class.
	3 <sup>RD</sup>	Doubt clear lab class.
	4 <sup>TH</sup>	Viva voce test-1 (experiment-10).
11 <sup>TH</sup>	1 <sup>ST</sup>	Revision 1
	2 <sup>ND</sup>	Revision 2
	3 <sup>RD</sup>	Revision 3
	4 <sup>TH</sup>	Revision 4
12 <sup>TH</sup>	1 <sup>ST</sup>	Revision 5
	2 <sup>ND</sup>	Revision 6
	3 <sup>RD</sup>	Record checking of the students 1
	4 <sup>TH</sup>	Record checking of the students 2
13 <sup>TH</sup>	1 <sup>ST</sup>	Study of Application of turbines by using smart class room.
	2 <sup>ND</sup>	Study of Application of pump by using smart class room.
	3 <sup>RD</sup>	Study of Application of hydraulic system by using smart class room.
	4 <sup>TH</sup>	Study of Application of pneumatic system by using smart class room.
14 <sup>TH</sup>	1 <sup>ST</sup>	Grand viva voce test- 1
	2 <sup>ND</sup>	Grand viva voce test- 2
	3 <sup>RD</sup>	Record submission by student.
	4 <sup>TH</sup>	Record checking and final Marking.



Principal  
Govt. Polytechnic  
Kalyandurga

12/10/22



**LESSON PLAN: WINTER 2022**

Discipline: Mechanical	Semester: WINTER 2022	Name of the teaching faculty: Dambarudhar Patel
Subject: Design of machines	No of days/per week class allotted: 04	Semester From Date: 15/09/2022 To Date: 22/12/2022 No of weeks:14
Week:	Class day:	Theory/practical topics:
1 <sup>st</sup> :	1 <sup>st</sup>	Introduction to Machine Design and Classify it.
	2 <sup>nd</sup>	Different mechanical engineering materials used in design with their uses and their mechanical and physical properties.
	3 <sup>rd</sup>	Do
	4 <sup>th</sup>	Define working stress, yield stress, ultimate stress & factor of safety and stress-strain curve for M.S & C.I.
2 <sup>nd</sup>	1 <sup>st</sup>	Do
	2 <sup>nd</sup>	Modes of Failure
	3 <sup>rd</sup>	Do
	4 <sup>th</sup>	State the factors governing the design of machine elements.
3 <sup>rd</sup>	1 <sup>st</sup>	Do
	2 <sup>nd</sup>	Describe design procedure.
	3 <sup>rd</sup>	Do
	4 <sup>th</sup>	Do
4 <sup>th</sup>	1 <sup>st</sup>	Joints and their classification.
	2 <sup>nd</sup>	State types of welded joints.
	3 <sup>rd</sup>	State advantages of welded joints over other joints.
	4 <sup>th</sup>	Design of welded joints for eccentric loads.
5 <sup>th</sup>	1 <sup>st</sup>	State types of riveted joints and types of rivets.
	2 <sup>nd</sup>	Describe failure of riveted joints.
	3 <sup>rd</sup>	Determine strength & efficiency of riveted joints.
	4 <sup>th</sup>	Design riveted joints for pressure vessel.
6 <sup>th</sup>	1 <sup>st</sup>	Solve numerical on Welded Joint and Riveted Joints
	2 <sup>nd</sup>	Do
	3 <sup>rd</sup>	Do
	4 <sup>th</sup>	Do
7 <sup>th</sup>	1 <sup>st</sup>	State function of shafts.
	2 <sup>nd</sup>	State materials for shafts.

*Handwritten signature*  
 Principal  
 10/10/22  
 Govt. Polytechnic  
 Kalahandi



	3 <sup>RD</sup>	Design solid & hollow shafts to transmit a given power at given rpm based on
	4 <sup>TH</sup>	Do
8 <sup>th</sup>	1 <sup>ST</sup>	State standard size of shaft as per I.S.
	2 <sup>ND</sup>	State function of keys, types of keys & material of keys.
	3 <sup>RD</sup>	Describe failure of key, effect of key way.
	4 <sup>TH</sup>	Design rectangular sunk key considering its failure against shear & Crushing
9 <sup>th</sup>	1 <sup>ST</sup>	Design rectangular sunk key by using empirical relation for given diameter of shaft.
	2 <sup>ND</sup>	State specification of parallel key, gib-head key, taper key as per I.S
	3 <sup>RD</sup>	Solve numerical on Design of Shaft and keys
	4 <sup>TH</sup>	Do
10 <sup>th</sup>	1 <sup>ST</sup>	Design of Shaft Coupling
	2 <sup>ND</sup>	Requirements of a good shaft coupling
	3 <sup>RD</sup>	Types of Coupling.
	4 <sup>TH</sup>	Design of Sleeve or Muff-Coupling.
11 <sup>th</sup>	1 <sup>ST</sup>	Do
	2 <sup>ND</sup>	Design of Clamp or Compression Coupling.
	3 <sup>RD</sup>	Do
	4 <sup>TH</sup>	Solve simple numerical on above.
12 <sup>th</sup>	1 <sup>ST</sup>	Do
	2 <sup>ND</sup>	Do
	3 <sup>RD</sup>	Materials used for helical spring.
	4 <sup>TH</sup>	Standard size spring wire. (SWG).
13 <sup>th</sup>	1 <sup>ST</sup>	Terms used in compression spring.
	2 <sup>ND</sup>	Stress in helical spring of a circular wire.
	3 <sup>RD</sup>	Do
	4 <sup>TH</sup>	Deflection of helical spring of circular wire.
14 <sup>th</sup>	1 <sup>ST</sup>	Surge in spring.
	2 <sup>ND</sup>	Solve numerical on design of closed coil helical compression spring
	3 <sup>RD</sup>	Do
	4 <sup>TH</sup>	Do

*Barbar*  
10/10/22

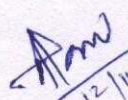
*Principal*  
10/10/22  
Govt. Polytechnic  
Kalahandi

*Dambam*



# LESSON PLAN: HM & IFP WINTER SEMESTER 2022

Discipline: <b>Mechanical Engineering</b>	Semester: 5 <sup>TH</sup> Winter 2022	Name of the teaching faculty: <b>Aurobinda Biswas</b>
Subject: <b>HM &amp; IFP</b>	No of days/per week class allotted: <b>04</b>	Semester From Date: <b>15/09/2022</b> To Date: <b>22/12/2022</b> No of weeks: <b>14</b>
Week:	Class day:	<b>Theory/practical topics:</b>
<b>1st</b>	<b>1st</b>	Definition and classification of turbines
	<b>2nd</b>	Impulse turbine with parts involved
	<b>3rd</b>	Working of impulse turbine-Pelton wheel turbine
	<b>4th</b>	Velocity diagram, working principle
<b>2nd</b>	<b>1st</b>	Derivation of work done and efficiency
	<b>2nd</b>	Solved problems on Pelton wheel turbine
	<b>3rd</b>	Study of reaction turbines-Francis turbine
	<b>4th</b>	Working of Francis turbine with parts
<b>3rd</b>	<b>1st</b>	Velocity diagram, working principle
	<b>2nd</b>	Derivation of work done and efficiency
	<b>3rd</b>	Solved problems on Francis turbine
	<b>4th</b>	Study of reaction turbines-Kaplan turbine
<b>4th</b>	<b>1st</b>	Kaplan turbine with parts involved
	<b>2nd</b>	Working of turbine-Kaplan turbine
	<b>3rd</b>	Velocity diagram, working principle
	<b>4th</b>	Derivation of work done and efficiency
<b>5th</b>	<b>1st</b>	Solved problems on Kaplan turbine
	<b>2nd</b>	Comparison between impulse vs reaction turbine
	<b>3rd</b>	All the efficiencies involved in turbines
	<b>4th</b>	Semester based question solved
<b>6th</b>	<b>1st</b>	Definition of pumps, classification of pumps
	<b>2nd</b>	Centrifugal pumps working principle
	<b>3rd</b>	Different types of head used
	<b>4th</b>	Parts involved in centrifugal pump
<b>7th</b>	<b>1st</b>	Derivation of work done and efficiency
	<b>2nd</b>	Solved problems on pumps
	<b>3rd</b>	Reciprocating pumps, head used in it

  
 12/10/22  
 Principal  
 Govt. Polytechnic  
 Kalahandi



	4th	Working of single acting reciprocating pump
8th	1st	Derivation of power required
	2nd	Solved problems on Pumps
	3rd	Working of double acting reciprocating pump
	4th	Derivation of power required
9th	1st	Solved problems on pumps
	2nd	Concept of slip, negative slip
	3rd	Relationship between slip and discharge
	4th	Hydraulic systems, its merit and demerits
10th	1st	Pressure control valves, its types
	2nd	Pressure relief valves, its types
	3rd	Pressure regulation valves and its types
	4th	Direction control valves and its types
11th	1st	Flow control valves, throttle valves
	2nd	Fluid power pumps, vane pump
	3rd	External and internal gear pumps
	4th	ISO symbols of hydraulic components
12th	1st	Actuator and its types
	2nd	Direct operation of single acting cylinder
	3rd	Direct operation of double acting cylinder
	4th	pneumatic systems, its merit and demerits
13th	1st	Pressure control valves, its types, Pressure relief valves, its types
	2nd	Pressure regulation valves and its types
	3rd	Direction control valves and its types
	4th	Flow control valves, throttle valves
14th	1st	3/2 DCV, 5/2 DCV, Lubrication unit
	2nd	ISO symbols of pneumatic components, Actuator and its types
	3rd	Direct operation of single acting cylinder, Direct operation of double acting cylinder.
	4th	Comparison between both direct operation of single and double acting cylinder.

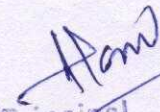
12/10/22  
 Principal  
 Govt. Polytechnic  
 Kalabandi

12/10/22



## LESSON PLAN: R&AC WINTER SEMESTER 2022

Discipline: Mechanical Engg.	Semester: 5th	Name of the Teaching Faculty: Anirudha Tarai
Subject: Refrigeration & Air Conditioning	No. of days/Week class allotted: 4	Semester From date:15-09-2022 To Date: 22-12-2022 No. of Weeks: 15
Week	Class Day	Theory Topics
1st	1st	Set induction about the subject,objectives,question pattern
	2nd	Unit-1(AIR REFRIGERATION CYCLE): Set induction,Objectives,Introduction ,Definition of refrigeration and unit of refrigeration,Chalk board summary
	3rd	MILEY,Definition of COP, Refrigerating effect (R.E ),Chalk board summary
	4th	MILEY,Principle of working of open and closed air system of refrigeration,Chalk board summary
2nd	1st	MILEY,Calculation of COP of Bell-Coleman cycle and numerical on it.,Chalk board summary
	2nd	MILEY,solve Simple problems
	3rd	Video presentation,Assignments,Questions and Answers session
	4th	Unit-2(SIMPLE VAPOUR COMPRESSION REFRIGERATION SYSTEM):Schematic diagram of simple vapors compression refrigeration system,Chalk board summary
3rd	1st	MILEY,Cycle with dry saturated vapors after compression, solve simple problems,Chalk board summary
	2nd	MILEY,Cycle with wet vapors after compressionsolve simple problems,Chalk board summary
	3rd	MILEY,Cycle with superheated vapors after compression, solve simple problems,Chalk board summary
	4th	MILEY,Cycle with superheated vapors before compression,solve simple problems,Chalk board summary
4th	1st	MILEY,Cycle with sub cooling of refrigerant, solve simple problemsChalk board summary
	2nd	MILEY,Representation of above cycle on temperature entropy and pressure enthalpy diagram,Chalk board summary
	3rd	Video presentation,Assignments,Questions and Answers session
	4th	Unit-3(VAPOUR ABSORPTION REFRIGERATION SYSTEM): Objectives,introduction,Definition of vapor absorption refrigeration system,Chalk board summary
5th	1st	MILEY,Simple vapor absorption refrigeration system,Chalk board summary
	2nd	MILEY,Practical vapor absorption refrigeration system,Chalk board summary

  
 Principal  
 Govt. Polytechnic  
 Kalahandi

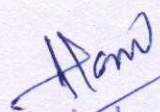


	3rd	MILEY, COP of an ideal vapor absorption refrigeration system,, Chalk board summary
	4th	MILEY, Solve simple problems
6th	1st	Video presentation, Assignments, Questions and Answers session
	2nd	Unit-4 (REFRIGERATION EQUIPMENTS): Objectives, Introduction of Refrigeration Equipments, Chalk board summary
	3rd	MILEY, Principle of working and constructional details of reciprocating and rotary compressors, Chalk board summary
	4th	MILEY, Centrifugal compressor only theory, Important terms, Chalk board summary
7th	1st	MILEY, Hermetically and semi hermetically sealed compressor, Chalk board summary
	2nd	MILEY, Principle of working and constructional details of air cooled and water cooled condenser, Chalk board summary
	3rd	MILEY, Heat rejection ratio, Cooling tower and spray pond, Chalk board summary
	4th	MILEY, Principle of working and constructional details of an evaporator, Chalk board summary
8th	1st	MILEY, Types of evaporator, Chalk board summary
	2nd	MILEY, Bare tube coil evaporator, finned evaporator, shell and tube evaporator, Chalk board summary
	3rd	Video presentation, Assignments, Questions and Answers session
	4th	Unit-5 (REFRIGERANT FLOW CONTROLS, REFRIGERANTS & APPLICATION OF REFRIGERANTS): Objectives, Introduction of Refrigerants & its flow control, Chalk board summary
9th	1st	MILEY, Capillary tube, Chalk board summary
	2nd	MILEY, Automatic expansion valve, Thermostatic expansion valve, Chalk board summary
	3rd	MILEY, Refrigerants & its Classification, Chalk board summary
	4th	MILEY, Desirable properties of an ideal refrigerant, Chalk board summary
10th	1st	
	2nd	MILEY, Designation of refrigerant, Chalk board summary
	3rd	MILEY, Chemical properties of refrigerants, Commonly used refrigerants, R-11, R-12, R-22, R-134a, R-717, Substitute for CFC, Chalk board summary
	4th	
11th	1st	MILEY, Applications of refrigeration (cold storage), Chalk board summary
	2nd	MILEY, Dairy refrigeration, ice plant, Chalk board summary
	3rd	MILEY, water cooler, frost free refrigerator, Chalk board summary
	4th	Video presentation, Assignments, Questions and Answers session
12th	1st	Unit-6 (PSYCHOMETRICS & COMFORT AIR CONDITIONING SYSTEMS): Objectives, Introduction of Psychometric terms & air-conditioning system, Chalk board summary
	2nd	MILEY, Adiabatic saturation of air by evaporation of water, Psychometric chart and uses, Chalk board summary
	3rd	MILEY, Psychometric processes (Sensible heating and Cooling, Cooling and Dehumidification), Chalk board summary
	4th	MILEY, Psychometric processes (Heating and Humidification, Adiabatic cooling with humidification), Chalk board summary



## LESSON PLAN: R&AC WINTER SEMESTER 2022

<b>Discipline:</b> Mechanical Engg.	<b>Semester:</b> 5th	<b>Name of the Teaching Faculty:</b> Anirudha Tarai
<b>Subject:</b> Refrigeration & Air Conditioning	<b>No. of days/Week class allotted:</b> 4	<b>Semester From date:</b> 15-09-2022 <b>To Date:</b> 22-12-2022 <b>No. of Weeks:</b> 15
<b>Week</b>	<b>Class Day</b>	<b>Theory Topics</b>
1st	1st	Set induction about the subject, objectives, question pattern
	2nd	Unit-1(AIR REFRIGERATION CYCLE): Set induction, Objectives, Introduction, Definition of refrigeration and unit of refrigeration, Chalk board summary
	3rd	MILEY, Definition of COP, Refrigerating effect (R.E ), Chalk board summary
	4th	MILEY, Principle of working of open and closed air system of refrigeration, Chalk board summary
2nd	1st	MILEY, Calculation of COP of Bell-Coleman cycle and numerical on it., Chalk board summary
	2nd	MILEY, solve Simple problems
	3rd	Video presentation, Assignments, Questions and Answers session
	4th	Unit-2(SIMPLE VAPOUR COMPRESSION REFRIGERATION SYSTEM): Schematic diagram of simple vapors compression refrigeration system, Chalk board summary
3rd	1st	MILEY, Cycle with dry saturated vapors after compression, solve simple problems, Chalk board summary
	2nd	MILEY, Cycle with wet vapors after compression solve simple problems, Chalk board summary
	3rd	MILEY, Cycle with superheated vapors after compression, solve simple problems, Chalk board summary
	4th	MILEY, Cycle with superheated vapors before compression, solve simple problems, Chalk board summary
4th	1st	MILEY, Cycle with sub cooling of refrigerant, solve simple problems Chalk board summary
	2nd	MILEY, Representation of above cycle on temperature entropy and pressure enthalpy diagram, Chalk board summary
	3rd	Video presentation, Assignments, Questions and Answers session
	4th	Unit-3(VAPOUR ABSORPTION REFRIGERATION SYSTEM): Objectives, introduction, Definition of vapor absorption refrigeration system, Chalk board summary
5th	1st	MILEY, Simple vapor absorption refrigeration system, Chalk board summary
	2nd	MILEY, Practical vapor absorption refrigeration system, Chalk board summary

  
 Principal  
 Govt. Polytechnic  
 Kalahandi