

LESS ON PLAN

Discipline : Mechanical Engg.	Semester : 5th	Name of the Teaching Faculty : Bhagyashree Patra(Lect. Mech)
Subject : HYDRAULIC MACHINES &INDUSTRIAL FLUID POWER LAB	No.of days/Per weeks Class Alloted Weeks :4	Semester From Date: 01.08.2023 To Date: 30.11.2023
Weeks	Class day	Practical
1st	1st	Performance test on impulse turbine and to find out the efficiency
	2nd	Performance test on impulse turbine and to find out the efficiency
2nd	1st	Performance test on impulse turbine and to find out the efficiency
	2nd	Performance test on Kaplan turbine and to find out the efficiency
3rd	1st	Performance test on Kaplan turbine and to find out the efficiency
	2nd	Performance test on Francis turbine and to find out the efficiency
4th	1st	Performance test on Francis turbine and to find out the efficiency
	2nd	Performance test on centrifugal pump and to find out the characteristic curves
5th	1st	Performance test on centrifugal pump and to find out the characteristic curves
	2nd	Direct operation of single &double acting pneumatic cylinder.
6th	1st	Direct operation of single &double acting pneumatic cylinder.
	2nd	Operating double acting pneumatic cylinder with quick exhaust valve
7th	1st	Operating double acting pneumatic cylinder with quick exhaust valve
	2nd	Speed control double acting pneumatic cylinder using metering in and metering out circuits.
8th	1st	Speed control double acting pneumatic cylinder using metering in and metering out circuits.
	2nd	Speed control double acting pneumatic cylinder using metering in and metering out circuits.
9th	1st	Direct operation of single &double acting hydraulic cylinder
	2nd	Direct operation of single &double acting hydraulic cylinder
10th	1st	Direct operation of single &double acting hydraulic cylinder
	2nd	Direct operation of hydraulic motor
11th	1st	Direct operation of hydraulic motor

	2nd	Speed control double acting hydraulic cylinder using metering in & metering out circuits.
12th	1st	Speed control double acting hydraulic cylinder using metering in & metering out circuits.
	2nd	Performance test on Kaplan turbine and to find out the efficiency
13th	1st	Direct operation of single & double acting pneumatic cylinder.
	2nd	Direct operation of single & double acting pneumatic cylinder.
14th	1st	Conducting performance test on impulse and reaction turbine
	2nd	Conducting performance test on impulse and reaction turbine
15th	1st	Checking Records.
	2nd	Checking Records.

Patra
 3007.23
 Bhagyashree patra
 (Lect. Mechanical)


 Sr. Lect. Mechanical
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LESSION PLAN

Discipline : Mechanical Engg.	Semester : 5th	Name of the Teaching Faculty : Monalisha Behera(Sr.Lect.Mech)
Subject : CAD/CAM LAB	No.of days/Per weeks Class Alloted Weeks :4	Semester From Date: 01.08.2023 To Date: 30.11.2023
Weeks	Class day	Practical
1st	1st	To understand the fundamentals and use of CAD.
	2nd	To understand the fundamentals and use of CAD.
2nd	1st	To conceptualize drafting and modelling in CAD.
	2nd	To conceptualize drafting and modelling in CAD.
3rd	1st	To prepare CNC programmes for various jobs
	2nd	To prepare CNC programmes for various jobs
4th	1st	To synthesize various parts or components in an assembly
	2nd	To synthesize various parts or components in an assembly
5th	1st	Part modelling, Datum plane, Datum plane; constraint
	2nd	Part modelling, Datum plane, Datum plane; constraint
6th	1st	dimensioning; extrude; revolve; sweep
	2nd	dimensioning; extrude; revolve; sweep
7th	1st	protrusion; extrusion; rib; shell; hole; round; chamfer
	2nd	protrusion; extrusion; rib; shell; hole; round; chamfer
8th	1st	copy; mirror; assembly; align; orient
	2nd	copy; mirror; assembly; align; orient
9th	1st	2D Drawings of Rectangle, circle, polygon and its dimensioning
	2nd	2D Drawings of Rectangle, circle, polygon and its dimensioning
10th	1st	Drawings of; Gib and cutter joint ,Screw Jack; Connecting Rod; Bearing Block.
	2nd	Drawings of; Gib and cutter joint ,Screw Jack; Connecting Rod; Bearing Block.
11th	1st	Drawings of; Gib and cutter joint ,Screw Jack; Connecting Rod; Bearing Block.
	2nd	Print the orthographic view from the above assembled 3D drawing
12th	1st	Study of CNC lathe, milling;

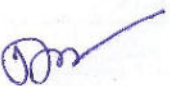
	2nd	Study of international codes; G-Codes and M –Codes
13th	1st	Programme writing –Turning Simulator-Milling simulator IS practice-commands menus
	2nd	Programme writing –Turning Simulator-Milling simulator IS practice-commands menus
14th	1st	Editing the programme in the CNC MACHINES
	2nd	Execute the programme in the CNC machines
15th	1st	Checking Records.
	2nd	Checking Records.


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LESSON PLAN

Discipline : Mechanical Engg.	Semester : 5th	Name of the Teaching Faculty : Priyabrat Pradhan (PTGF)
Subject : REFRIGERATION AND AIR CONDITIONING LAB	No.of days/Per weeks Class Alloted Weeks :4	Semester From Date: 01.08.2023 To Date: 30.11.2023
Weeks	Class day	Practical
1st	1st	Study the construction features of Domestic Refrigerator
	2nd	Study the construction features of Domestic Refrigerator
2nd	1st	Determine the capacity and the COP of vapour compression refrigerator test rig.
	2nd	Determine the capacity and the COP of vapour compression refrigerator test rig.
3rd	1st	Determine the capacity and the COP of vapour compression refrigerator test rig.
	2nd	Determine the capacity and the COP of water cooler.
4th	1st	Determine the capacity and the COP of water cooler.
	2nd	Determine the capacity & COP of window air conditioner.
5th	1st	Determine the capacity & COP of window air conditioner.
	2nd	Determine the capacity & COP of split air conditioner.
6th	1st	Complete charging of a domestic refrigerator and its leak test.
	2nd	Complete charging of a domestic refrigerator and its leak test.
7th	1st	Study the construction of feature of domestic refrigerator.
	2nd	Study the construction of feature of domestic refrigerator.
8th	1st	Study the construction of feature of domestic refrigerator.
	2nd	Study the construction feature of water cooler.
9th	1st	Study the construction feature of water cooler.
	2nd	Study the construction feature of water cooler.
10th	1st	Study the construction feature of window A/C.
	2nd	Study the construction feature of window A/C.
11th	1st	Study the construction feature of window A/C.
	2nd	Study the construction feature of Split A/C.

12th	1st	Study the construction feature of Split A/C.
	2nd	Study the construction feature of Split A/C.
13th	1st	Determine the cop of refrigerating tutor.
	2nd	Determine the cop of refrigerating tutor.
14th	1st	Determine the cop of refrigerating tutor.
	2nd	Determine the cop of an AC tutor.
15th	1st	Determine the cop of an AC tutor.
	2nd	Determine the cop of an AC tutor.


 Priyabrata Priyadarshi Pradhan
 Dept. Mechanical (PTGf)


 Sr. Lect. Mechanical
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REFRIGERATION AND AIR CONDITIONING LESSON PLAN

Discipline : Mechanical Engg.	Semester : 5th	Name of the Teachnig Faculty : Mrs. Monalisha Behera
Subject : REFRIGERATION AND AIR CONDITIONING	No.of days/Per weeks Class Alloted Weeks :4	Semester From Date: 1st Aug 2023 To Date: 30th Nov 2023
Weeks	Class day	Theory
1ST(AUG-2023)	1st	Definition of refrigeration and unit of refrigeration, Definition of COP, Refrigerating Effect
	2nd	Principle of working of open and closed air system of refrigeration. 1.3.1 Calculation of COP of Bell-Coleman cycle and numerical on it
	3rd	Numericals
	4th	Schematic diagram of simple vapors compression refrigeration system
2ND(AUG-2023)	1st	Cycle with dry saturated vapours after compression
	2nd	Cycle with wet vapours after Compression
	3rd	Cycle with superheated vapors after compression.
	4th	Cycle with superheated vapors before compression & Cycle with sub cooling of refrigerant
3RD(AUG-2023)	1st	Representation of above cycle on temperature entropy and pressure enthalpy diagram & Numerical on above (determination of COP, mass flow)
	2nd	Representation of above cycle on temperature entropy and pressure enthalpy diagram & Numerical on above (determination of COP, mass flow)
	3rd	Representation of above cycle on temperature entropy and pressure enthalpy diagram & Numerical on above (determination of COP, mass flow)
	4th	Representation of above cycle on temperature entropy and pressure enthalpy diagram & Numerical on above (determination of COP, mass flow)
4TH(AUG-2023)	1st	Simple vapor absorption refrigeration system, Practical vapor absorption refrigeration system
	2nd	COP of an ideal vapor absorption refrigeration system & Numerical on COP
	3rd	Psychometric terms, Adiabatic saturation of air by evaporation of water, Psychometric chart and uses.
	4th	Psychometric terms, Adiabatic saturation of air by evaporation of water, Psychometric chart and uses.
1ST(SEP-2023)	1st	Sensible heating and Cooling
	2nd	Cooling and Dehumidification

	3rd	CLASS TEST -1
	4th	CLASS TEST -1
2ND(SEP-2023)	1st	Heating and Humidification
	2nd	Adiabatic cooling with humidification
	3rd	Total heating of a cooling process
	4th	SHF, BPF, Adiabatic mixing
3RD(SEP-2023)	1st	Numericals
	2nd	Numericals
	3rd	Numericals
	4th	Factors affecting comfort air conditioning. .
4TH(SEP-2023)	1st	Equipment used in an air-conditioning.
	2nd	Classification of air-conditioning system
	3rd	Winter Air Conditioning System
	4th	Summer air-conditioning system
1ST(OCT-2023)	1st	Numerical on above
	2nd	Numerical on above
	3rd	Principle of working and constructional details of reciprocating and rotary compressors
	4th	Centrifugal compressor
2ND(OCT-2023)	1st	INTERNAL ASSESSMENT
	2nd	INTERNAL ASSESSMENT
	3rd	INTERNAL ASSESSMENT
	4th	Important terms, Hermetically and semi hermetically sealed compressor.
3RD(OCT-2023)	1st	Principle of working and constructional details of air cooled and water cooled condenser
	2nd	Heat rejection ratio, Cooling tower and spray pond.
	3rd	1 Principle of working and constructional details of an evaporator
	4th	Types of evaporator.
1ST (NOV-2023)	1st	Bare tube coil evaporator
	2nd	finned evaporator

	3rd	shell and tube evaporator
	4th	EXPANSION VALVES
2ND (NOV-2023)	1st	Automatic expansion valve
	2nd	Capillary tube
	3rd	CLASS TEST-2
	4th	CLASS TEST-2
3RD (NOV-2023)	1st	Automatic Expansion valve
	2nd	Thermostatic expansion valve
	3rd	Classification of refrigerants , Desirable properties of an ideal refrigerant. Designation of refrigerant.
	4th	Thermodynamic Properties of Refrigerants. 5.2.5 Chemical properties of refrigerants.
4TH (NOV-2023)	1st	commonly used refrigerants, R-11, R-12, R-22, R-134a, R-717 5.2.7 Substitute for CFC
	2nd	cold storage , dairy refrigeration , ice plant
	3rd	water cooler , frost free refrigerator
	4th	water cooler , frost free refrigerator

Sahu

Subhansu Sahu
Department of Mechanical Engg (PTGF)


Sr. Lect. Mechanical
Govt. Polytechnic Angul
2023

LESSON PLAN

Discipline :Mechanical engineering	Semester : 5th	Name of the Teachnig Faculty : Mrs LOPAMUDRA SWAIN
Subject: DESIGN OF MACHINE ELEMENTS	No.of days/Per weeks Class Alloted Weeks :4	Semester :5th No.of Weeks : 4
Weeks	Class day	Theory
1st week(Aug-2023)	1st	Introduction to Machine Design and Classify it.
	2nd	Different mechanical engineering materials used in design with their uses and their mechanical and physical properties.
	3rd	Different mechanical engineering materials used in design with their uses and their mechanical and physical properties.
	4th	Define working stress, yield stress, ultimate stress & factor of safety and stress –strain curve for M.S & C.I.
2nd week	1st	Define working stress, yield stress, ultimate stress & factor of safety and stress –strain curve for M.S & C.I.
	2nd	Modes of Failure (By elastic deflection, general yielding & fracture)
	3rd	Modes of Failure (By elastic deflection, general yielding & fracture)
	4th	State the factors governing the design of machine elements.
3rd week	1st	Describe design procedure.
	2nd	Describe design procedure.
	3rd	State types of welded joints .
	4th	State advantages of welded joints over other joints.
4th week	1st	Design of welded joints for eccentric loads.
	2nd	Design of welded joints for eccentric loads.
	3rd	State types of riveted joints and types of rivets.
	4th	Describe failure of riveted joints.
1st week (Sep -2023)	1st	Determine strength & efficiency of riveted joints
	2nd	Design riveted joints for pressure vessel.
	3rd	CLASS TEST -1
	4th	CLASS TEST -1
2nd week	1st	Solve numerical on Welded Joint and Riveted Joints.
	2nd	State function of shafts.
	3rd	State materials for shafts.
	4th	Design solid & hollow shafts to transmit a given power at given rpm based on a) Strength: (i) Shear stress, (ii) Combined bending tension; b) Rigidity: (i) Angle of twist, (ii) Deflection, (iii) Modulus of rigidity

3rd week	1st	Design solid & hollow shafts to transmit a given power at given rpm based on a) Strength: (i) Shear stress, (ii) Combined bending tension; b) Rigidity: (i) Angle of twist, (ii) Deflection, (iii) Modulus of rigidity
	2nd	Design solid & hollow shafts to transmit a given power at given rpm based on a) Strength: (i) Shear stress, (ii) Combined bending tension; b) Rigidity: (i) Angle of twist, (ii) Deflection, (iii) Modulus of rigidity
	3rd	Design solid & hollow shafts to transmit a given power at given rpm based on a) Strength: (i) Shear stress, (ii) Combined bending tension; b) Rigidity: (i) Angle of twist, (ii) Deflection, (iii) Modulus of rigidity
	4th	State standard size of shaft as per I.S., Describe failure of key, effect of key way
4th week	1st	Design rectangular sunk key considering its failure against shear & crushingDesign rectangular sunk key by using empirical relation for given diameter of shaft.
	2nd	Design rectangular sunk key considering its failure against shear & crushingDesign rectangular sunk key by using empirical relation for given diameter of shaft.
	3rd	
	4th	State specification of parallel key, gib-head key, taper key as per I.S.
1st week (Oct -2023)	1st	Design rectangular sunk key considering its failure against shear & crushingDesign rectangular sunk key by using empirical relation for given diameter of shaft.
	2nd	State specification of parallel key, gib-head key, taper key as per I.S.
	3rd	Design of Shaft Coupling
	4th	Solve numerical on Design of Shaft and keys.
2nd week	1st	INTERNAL
	2nd	INTERNAL
	3rd	INTERNAL
	4th	Requirements of a good shaft coupling.
3rd week	1st	Types of Coupling.
	2nd	Design of Sleeve or Muff-Coupling.
	3rd	Solve simple numerical on above.
	4th	Solve simple numerical on above.
1st week (Nov -2023)	1st	Stress in helical spring of a circular wire.
	2nd	Deflection of helical spring of circular wire.
	3rd	Surge in spring.
	4th	Solve numerical on design of closed coil helical compression spring.
2nd week	1st	Solve simple numerical on above
	2nd	Solve simple numerical on above.
	3rd	CLASS TEST -2
	4 th	CLASS TEST -2

3rd week	1st	Materials used for helical spring.
	2nd	Materials used for helical spring.
	3rd	Materials used for helical spring.
	4th	Standard size spring wire. (SWG)
4th week	1st	Standard size spring wire. (SWG)
	2nd	Terms used in compression spring.
	3rd	Deflection of helical spring of circular wire.
	4th	Surge in spring.

Swain
31/07/2023

Sr.Lect.Mechanical
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Swain
30/07/2023

HYDRAULIC MACHINES AND INDUSTRIAL FLUID POWER LESS ON PLAN

Discipline : Mechanical Engg.	Semester : 5th	Name of the Teachnig Faculty : Miss BHAGYASHREE PATRA
Subject : Hydraulic machine and industrial fluid Power	No.of days/Per weeks Class Alloted :4	Semester From Date: 1st Aug 2023 To Date: 30th Nov 2023
Weeks	Class day	Theory
1ST(AUG-2023)	1st	Definition hydraulic turbines
	2nd	classification of hydraulic turbines
	3rd	Construction and working principle of impulse turbine
	4th	Velocity diagram of moving blades of pelton wheel
2ND(AUG-2023)	1st	work done and derivation of various efficiencies
	2nd	Numericals
	3rd	Construction and working principle of Reaction turbine
	4th	Velocity diagram of moving blades of Francis Turbine
3RD(AUG-2023)	1st	Numericals
	2nd	Numericals
	3rd	Distinguish between impulse turbine and reaction turbine.
	4th	Construction and working principle of centrifugal pumps
4TH(AUG-2023)	1st	work done and derivation of various efficiencies of centrifugal pumps.
	2nd	Numericals
	3rd	Numericals
	4th	Describe construction & working of single acting reciprocating pump
1ST(SEP-2023)	1st	Describe construction & working of double acting reciprocating pump.
	2nd	State positive & negative slip & establish relation between slip & coefficient of discharge.
	3rd	CLASS TEST-1
	4th	CLASS TEST-1
2ND(SEP-2023)	1st	Numericals of Reciprocating Pump

	2nd	Numericals of Reciprocating Pump
	3rd	Elements –filter-regulator-lubrication unit
	4th	Pressure control valves
3RD(SEP-2023)	1st	Pressure relief valves
	2nd	Pressure regulation valves
	3rd	3/2DCV
	4th	5/2 DCV
4TH(SEP-2023)	1st	5/3DCV
	2nd	5/3DCV
	3rd	Flow control valves
	4th	Flow control valves
1ST(OCT-2023)	1st	Throttle valves
	2nd	ISO Symbols of pneumatic components
	3rd	ISO Symbols of pneumatic components
	4th	Pneumatic circuits
2ND(OCT-2023)	1st	INTERNAL ASSESSMENT
	2nd	INTERNAL ASSESSMENT
	3rd	INTERNAL ASSESSMENT
	4th	Direct control of single acting cylinder
3RD(OCT-2023)	1st	Operation of double acting cylinder
	2nd	meter in, metering out circuits
	3rd	Comparison of hydraulic and pneumatic system
	4th	Hydraulic accumulators
1ST (NOV-2023)	1st	Pressure control valves
	2nd	Pressure relief valves
	3rd	3/2DCV
	4th	5/2 DCV
2ND (NOV-2023)	1st	5/3DCV
	2nd	Flow control valves

	3rd	CLASS TEST 2
	4th	CLASS TEST 2
3RD (NOV-2023)	1st	Throttle valves
	2nd	Fluid power pumps
	3rd	External gear pumps,internal gear pumps
	4th	Vane pump,Radial piston pumps
4TH (NOV-2023)	1st	Actuators
	2nd	Direct control of single acting cylinder
	3rd	Operation of double acting cylinder
	4th	Operation of double acting cylinder with metering in and metering out control

Patra
30.07.23

Bhagyashree patra
(Lect. mechanical)

Sr.Lect.Mechanical
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30/7/2023

MECHATRONICS LESS ON PLAN

Discipline :Mechanical Engineering	Semester : 5th	Name of the Teachnig Faculty : Sri Priyabrat Pradhan,Sri Sudhanshu Sekhar Munda
Subject:Mechatronics	No.of days/Per weeks Class Alloted :4	Semester From Date: 1st Aug 2023 To Date: 30th Nov 2023
Weeks	Class day	Theory
1ST(AUG-2023)	1st	Definition,Advantages & disadvantages, Application of Mechatronics
	2nd	Components of a Mechatronics System
	3rd	Importance of mechatronics in automation
	4th	Defination and Classification of Transducers
2ND(AUG-2023)	1st	Electromechanical Transducers
	2nd	Transducers Actuating Mechanisms
	3rd	Displacement &Positions Sensors
	4th	Velocity, motion, force and pressure, Temperature and light sensors.
3RD(AUG-2023)	1st	Velocity, motion, force and pressure, Temperature and light sensors.
	2nd	Mechanical Actuators
	3rd	Machine, Kinematic Link, Kinematic Pair
	4th	Mechanism, Slider crank Mechanism
4TH(AUG-2023)	1st	Gear Drive, Spur gear, Bevel gear, Helical gear, worm gear
	2nd	Belt & Belt drive
	3rd	Bearings
	4th	Electrical Actuator, Switches and relay
1ST(SEP-2023)	1st	Solenoid , D.C Motors
	2nd	A.C Motors,Stepper motor
	3rd	CLASS TEST-1
	4th	CLASS TEST-1
2ND(SEP-2023)	1st	Specifiation and control of stepper motors
	2nd	Servo Motors D.C & A.C

	3rd	Introduction of PLC
	4th	Selection and uses of PLC
3RD(SEP-2023)	1st	Architecture basic internal structures
	2nd	Input/output Processing and Programming
	3rd	Mnemonics ,Master and Jump Controllers
	4th	Mnemonics ,Master and Jump Controllers
4TH(SEP-2023)	1st	Introduction to Numerical Control of machines and CAD/CAM
	2nd	NC machines , CNC machines
	3rd	CAD/CAM
	4th	Software and hardware for CAD/CAM
1ST(OCT-2023)	1st	Software and hardware for CAD/CAM
	2nd	Functioning of CAD/CAM system
	3rd	Features and characteristics of CAD/CAM system
	4th	Application areas for CAD/CAM
2ND(OCT-2023)	1st	INTERNAL ASSESSMENT
	2nd	INTERNAL ASSESSMENT
	3rd	INTERNAL ASSESSMENT
	4th	elements of CNC machines
3RD(OCT-2023)	1st	Introduction to CNC machine
	2nd	Machine Structure of CNC machine
	3rd	Machine Structure of CNC machine
	4th	Guideways/Slide ways
1ST (NOV-2023)	1st	Introduction and Types of Guideways
	2nd	Introduction and Types of Guideways
	3rd	Factors of design of guideways
	4th	Drives
2ND (NOV-2023)	1st	Spindle drives
	2nd	Spindle drives
	3rd	CLASS TEST-2

	4th	CLASS TEST-2
3RD (NOV-2023)	1st	Feed drive
	2nd	Feed drive
	3rd	Spindle and Spindle Bearings
	4th	Definition, Function and laws of robotics
4TH (NOV-2023)	1st	Types of industrial robots
	2nd	Robotic systems
	3rd	Robotic systems
	4th	Advantages and Disadvantages of robots

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Prerajabrata Priyadarshi Prasadhan
Dept Mechanical (PTGf)

ENTREPRENEURSHIP MANAGEMENT AND SMART TECHNOLOGY LESSION PLAN

Discipline :Mechanical/Civil/Electrical engineering	Semester : 5th	Name of the Teachnig Faculty : Sri Laxmikant Nayak
Subject:Entrepreneurs hip and Management & Smart Technology	No.of days/Per weeks Class Alloted Weeks :4	Semester From Date: 1st Aug 2023 To Date: 30th Nov 2023
Weeks	Class day	Theory
1ST(AUG-2023)	1st	Concept /Meaning/Need of Entrepreneurship,Characteristics, Qualities and Types of entrepreneur.
	2nd	Entrepreneurs vrs. Manager .Forms of Business Ownership: Sole proprietorship, partnership forms and others
	3rd	Types of Industries, Concept of Start-ups
	4th	Entrepreneurial support agencies at National, State, District Level- DIC, NSIC,OSIC, SIDBI, NABARD
2ND(AUG-2023)	1st	Technology Business Incubators (TBI) and Science and Technology Entrepreneur Parks
	2nd	Market Survey and Opportunity Identification (Business Planning)
	3rd	SSI, Ancillary Units, Tiny Units, Service sector Units, Time schedule Plan
	4th	Assessment of Demand and supply and Potential areas of Growth .
3RD(AUG-2023)	1st	Identifying Business Opportunity,Final Product selection
	2nd	Preliminary project report preparation
	3rd	Detailed project report, Techno economic Feasibility
	4th	Project Viability
4TH(AUG-2023)	1st	Definitions and Principles of management
	2nd	Functions of management (planning, organising, staffing, directing and controlling etc.)
	3rd	Level of Management in an Organisation
	4th	Functions, Activities and Production management
1ST(SEP-2023)	1st	Productivity
	2nd	Quality control

	3rd	CLASS TEST-1
	4th	CLASS TEST-1
2ND(SEP-2023)	1st	Production Planning and control
	2nd	Need for Inventory management
	3rd	Models/Techniques of Inventory management
	4th	Functions of Financial management
3RD(SEP-2023)	1st	Management of Working capital, costing
	2nd	Break even Analysis
	3rd	Brief idea about Accounting Terminologies: Book Keeping, Journal entry, Petty Cash book
	4th	P&L Accounts, Balance Sheets
4TH(SEP-2023)	1st	Concept of Marketing and Marketing Management
	2nd	Marketing Techniques
	3rd	Concept of 4P s (Price, Place, Product, Promotion)
	4th	Human Resource Management
1ST(OCT-2023)	1st	Functions of Personnel Management
	2nd	Manpower Planning, Recruitment, Sources of manpower, Selection process,
	3rd	Method of Testing, Methods of Training & Development, Payment of Wages
	4th	Method of Testing, Methods of Training & Development, Payment of Wages
2ND(OCT-2023)	1st	INTERNAL ASSESSMENT
	2nd	INTERNAL ASSESSMENT
	3rd	INTERNAL ASSESSMENT
	4th	Definition and Need/Importance of leadership
3RD(OCT-2023)	1st	Qualities and functions of a leader
	2nd	Manager Vs Leader and Style of Leadership (Autocratic, Democratic, Participative)
	3rd	Definition and characteristics and Importance of motivation
	4th	Factors affecting motivation
1ST (NOV-2023)	1st	Theories of motivation (Maslow) and Methods of Improving Motivation
	2nd	Importance of Communication in Business and Types and Barriers of Communication
	3rd	Human relationship and Performance in Organization

	4th	Relations with Peers, Superiors and Subordinates
2ND (NOV-2023)	1st	TQM concepts: Quality Policy, Quality Management; Quality system
	2nd	TQM concepts: Quality Policy, Quality Management, Quality system
	3rd	CLASS TEST-2
	4th	CLASS TEST-2
3RD (NOV-2023)	1st	Accidents and Safety, Cause, preventive measures, General Safety Rules , Personal Protection Equipment(PPE
	2nd	Intellectual Property Rights(IPR), Patents, Trademarks, Copyrights
	3rd	Features of Factories Act 1948 with Amendment
	4th	Features of Payment of Wages Act 1936
4TH (NOV-2023)	1st	Smart Technology ,Concept of IOT, How IOT works
	2nd	Components of IOT, Characteristics of IOT, Categories of IOT
	3rd	Applications of IOT- Smart Cities, Smart Transportation, Smart Home
	4th	Smart Healthcare, Smart Industry, Smart Agriculture, Smart Energy Management


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