Discipline:- MECHANICAL	Semester: 5 TH	Name of the teaching faculty:- Prodeep Kumar Basile
Subject. HM & IFP	No. Of days / per week class allotted:- OL	Semester 5たり from date: 01, 09,20 To Date: 31,12,20 No. Of weeks:- 15
Week	Class day	Theory/ Practical Topics :
	1st	1.1 Definition and classification of hydraulic turbines
1 st	2nd	Construction and working principle of impulse turbine
	3rd ·	3 Velocity diagram of moving blades, work done and derivation of various efficiencies of impulse turbine
	4th	Velocity diagram of moving blades, work done and derivation of various efficiencies of Francis turbine
	1st	Velocity diagram of moving blades, work done and derivation of various efficiencies of Kaplan turbine
2 ND	2nd	Numerical on above
	3rd	Distinguish between impulse turbine and reaction turbine
	4th	Construction and working principle of centrifugal pumps
	1st	work done and derivation of various efficiencies of centrifugal pumps.
3 RD	2nd	Numerical on above
	3rd	Describe construction & working of single acting reciprocating pump
	4th	Describe construction & working of double acting reciprocating pump
	1st	Derive the formula foe power required to drive the pump (Single acting & double acting)
4 TH	2nd	Define slip.
	3rd	State positive & negative slip & establish relation between slip & coefficient of discharge
	4th	Solve numerical on above

3		· · · · · · · · · · · · · · · · · · ·	
	1st	Elements –filter-regulator-lubrication unit	N
5 th	2nd	Pressure control valves	
	3rd	Pressure relief valves	
	4th	Pressure regulation valves	10-
	1st	Direction control valves	
6 ^{тн}	2nd	3/2DCV,5/2 DCV,5/3DCV	
	3rd	Flow control valves	
	4th	Throttle valves	
•	1st	ISO Symbols of pneumatic components	
7 , TH	2nd	Pneumatic circuits	
•,	3rd	Direct control of single acting cylinder	,
	4th	Operation of double acting cylinder	
and the second second second	1st	Operation of double acting cylinder with metering in and metering out control	
8 TH	2nd	HYDRAULIC CONTROL SYSTEM	
	3rd	Hydraulic system, its merit and demerits	
	4th	Hydraulic accumulators	
	1st .	Pressure control valves	
9 ^{тн}	2nd	Pressure relief valves	
5	3rd	Pressure regulation valves	
	4th	Direction control valves	
	1st	3/2DCV,5/2 DCV,5/3DCV	and and an
10 TH	2nd	Flow control valves	
10	3rd	Throttle valves	
	4th	Fluid power pumps	
	1st	External and internal gear pumps	
11 TH	2nd	Vane pump	
t	3rd	Radial piston pumps	

Laura	411	ISO Symbols for hydraulic components
	4th	ISO Symbols for hydraulic compa
	1st	Actuators
12 TH	2nd	Hydraulic circuits
	3rd	Direct control of single acting cylinder
	4th	Operation of double acting cylinder
13 [™]	1st	Operation of double acting cylinder with metering in and metering out control
10	2nd	Comparison of hydraulic and pneumatic system
μ	3rd	Numerical Practise on above
	4th	Numerical Practise on above
	1st	Numerical Practise on above
14 TH	2nd	Numerical Practise on above
14	3rd	Revision
	4th	Revision
	1st	Revision
TH	2nd	Revision
15 TH	3rd	Revision
	4th	Kevision

Discipline:- MECHANICAL	Semester: 5 TH	Name of the teaching faculty:- Prodeep klimar Bonne
Subject. HM & IFP	No. Of days / per week class allotted:- DV	Semester 5-44 from date: 01/10122 To Date: 08/01/22 No. Of weeks:-15
Week	Class day	Theory/ Practical Topics :
	1st	1.1 Definition and classification of hydraulic turbines
	2nd	Construction and working principle of impulse turbine
1 ST	3rd	3 Velocity diagram of moving blades, work done and derivation of various efficiencies of impulse turbine
	4th	Velocity diagram of moving blades, work done and derivation of various efficiencies of Francis turbine
	1st	Velocity diagram of moving blades, work done and derivation of various efficiencies of Kaplan turbine
2 ND	2nd	Numerical on above
	3rd	Distinguish between impulse turbine and reaction turbine
	4th	Construction and working principle of centrifugal pumps
	1st	work done and derivation of various efficiencies of centrifugal pumps.
	2nd	Numerical on above
3 RD	3rd	Describe construction & working of single acting reciprocating pump
	4th	Describe construction & working of double acting reciprocating pump
	1st	Derive the formula foe power required to drive the pump (Single acting & double acting)
4 TH	2nd	Define slip.
	3rd	State positive & negative slip & establish relation between slip & coefficient of discharge
	4th	Solve numerical on above

	and the second sec	Elements –filter-regulator-lubrication unit	
	1st		
	2nd	Pressure control valves	
-TH D	3rd	Pressure relief valves	
		Pressure regulation valves	
	4th	Direction control valves	
	1st		
5 TH	2nd	3/2DCV,5/2 DCV,5/3DCV	
)	3rd	Flow control valves	
	4th	Throttle valves	4
	1st	ISO Symbols of pneumatic components	
		Pneumatic circuits	
7 TH	2nd	Direct control of single acting cylinder	
	3rd		
	4th	Operation of double acting cylinder	
	1st	Operation of double acting cylinder with metering in and metering out control	
8 TH	2nd	HYDRAULIC CONTROL SYSTEM	24.
	3rd	Hydraulic system, its merit and demerits	
	4th	Hydraulic accumulators	
	1st .	Pressure control valves	
		Pressure relief valves	
) [™]	2nd	Pressure regulation valves	1
3	3rd		
	4th	Direction control valves	yer i
	1st	3/2DCV,5/2 DCV,5/3DCV	
	2nd	Flow control valves	
.0 TH	3rd	Throttle valves	
		Fluid power pumps	
	4th	External and internal gear pumps	
	1st	Vane pump	-
1 TH	2nd		
	3rd	Radial piston pumps	

	4th	ISO Symbols for hydraulic components
12 TH	1st	Actuators
	2nd	Hydraulic circuits
	3rd	Direct control of single acting cylinder
	4th	Operation of double acting cylinder
13 TH	1st	Operation of double acting cylinder with metering in and metering out control
-	2nd	Comparison of hydraulic and pneumatic system
	3rd	Numerical Practise on above
	4th	Numerical Practise on above
	1st	Numerical Practise on above
a aTH	2nd	Numerical Practise on above
14 TH	3rd	Revision
	4th	Revision
15 TH	1st	Revision
	2nd	Revision
	3rd	Revision
	4th	Revision

PRINCIPAL R.K Institute of Engg & Tech Kantapada, Niali, Cuttack

₹.

-

Discipline:- MECHANICAL	Semester: 5 TH	Name of the teaching faculty:- Preadip Kumar Burik	
Subject. HM & IFP	No. Of days / per week class allotted:- 04	Semester 5-74 from date: 15.9.22 To Date: 21.01.23 No. Of weeks:- 15	
		Theory/ Practical Topics :	
Week	Class day	1.1 Definition and classification of hydraulic turbines	
	1st	Construction and working principle of impulse turbine	
1 st	2nd	is a light of moving blades, work done and derivation of	
	3rd	various efficiencies of impulse ta	
	4th	Velocity diagram of moving blader) various efficiencies of Francis turbine Velocity diagram of moving blades, work done and derivation of	
	1st	Velocity diagram of moving blace) were various efficiencies of Kaplan turbine Numerical on above	0
2 ND	2nd	Distinguish between impulse turbine and reaction turbine	
	3rd	Construction and working principle of centrifugal pumps	
	4th	Construction and Working principle work done and derivation of various efficiencies of centrifugal pumps.	
	1st		
	2nd	Numerical on above	
3 RD	3rd	Describe construction & working of single acting reciprocating pump	
	4th	Describe construction & working of double acting reciprocating pump Describe construction & working of double acting reciprocating pump (Single	
	1st	Describe construction Derive the formula foe power required to drive the pump (Single acting & double acting)	
4 TH	2nd	Define slip.	
		State positive & negative slip & establish relation between slip & coefficient of discharge Solve numerical on above	
	4th	Solve numerical on about	

		-	
	1st	Elements –filter-regulator-lubrication unit	
5 TH	2nd	Pressure control valves	
-	3rd	Pressure relief valves	
	4th	Pressure regulation valves	and of a
	1st	Direction control valves	
6 ^{тн}	2nd	3/2DCV,5/2 DCV,5/3DCV	
	3rd	Flow control valves	
	4th	Throttle valves	
	1st	ISO Symbols of pneumatic components	
7 TH	2nd	Pneumatic circuits	
	3rd	Direct control of single acting cylinder	
	4th	Operation of double acting cylinder	
	1st	Operation of double acting cylinder with metering in and metering out control	
3 TH	2nd	HYDRAULIC CONTROL SYSTEM	
	3rd	Hydraulic system, its merit and demerits	
	4th	Hydraulic accumulators	
	1st .	Pressure control valves	
тн	2nd	Pressure relief valves	
	3rd	Pressure regulation valves	
	4th	Direction control valves	- Al-
	1st	3/2DCV,5/2 DCV,5/3DCV	ages - s
STH.	2nd	Flow control valves	
) [™]	3rd	Throttle valves	-
	4th	Fluid power pumps	
	1st	External and internal gear pumps	
ты	2nd	Vane pump	
TH	3rd	Radial piston pumps	

	4th		
		ISO Symbols for hydraulic components	
	1st	Actuators	
12 TH	2nd	Hydraulic circuits	
	3rd	Direct control of single acting cylinder	
	4th	Operation of double acting cylinder	
13 TH	1st	Operation of double acting cylinder with metering in and metering out control	
-	2nd	Comparison of hydraulic and pneumatic system	
	3rd	Numerical Practise on above	
	4th	Numerical Practise on above	
	1st	Numerical Practise on above	
14 TH	2nd	Numerical Practise on above	
	3rd	Revision	-
	4th	Revision	
	1st	Revision	
15 TH	2nd	Revision	
	3rd	Revision	
	4th	Revision	
		1	



LESSON PLAN

Discipline : Mechanical	Semester: 5 th Sem	Name of the Teaching Faculty;
Engineering		Dayal Jyofi Sahoo Semester From Date: 01.09.20 To Date: No. Of 31.12.20
Subject: Mechatronics	No. Of Days/Week	Semester From Date: 01.09.20 To Date: No. Of 31.12.20
	Class Allotted DY	Weeks: 15
Week	Class Day	Theory/Practical Topics
l st	lst	INTRODUCTION TO MECHATRONICS:
		Definition, Advantages & disadvantages of Mechatronics.
	2nd	Application of Mechatronics, Importance of mechatronicsin automation.
	3rd	Components of a Mechatronics System
	4th	Review class and Discussion
2nd	lst	Assignment Evaluation & Class Test
	2nd	SENSORS AND TRANSDUCERS:
		Definition and classification of transducer
	3rd	Classification of Transducer
	4th	Electromechanical Transducers
3rd	1st	Transducers Actuating Mechanisms
	2nd	Sensors and its classifications
	3rd	Displacement & Positions Sensors
	4th	Electromechanical Transducers
4th	1st	Transducers Actuating Mechanisms
	2nd	Sensors and its classifications
	3rd	Displacement & Positions Sensors
	4th	Velocity and Motion sensors
5th	1st	Force and Pressure sensors.
	2nd	Temperature sensors
	3rd	Light sensors .
	4th	Review class and Discussion
-1	1st	Assignment Evaluation & Class Test
	2nd	ROBOTICS: Definition, Function and laws of robotics

1		Types of industrial robots. Advantages, Disadvantages and
	3rd	Types of industrial robots. Advantages, 2 Applications of robots
	4th	Robotic systems
7th	1 st	Review class and Discussion
	2nd	Assignment Evaluation & Class Test
	3rd	ELEMENTS OF CNC MACHINES: Introduction to Numerical Control of machines
	4th	NC machines
8th	lst	CNC machine
and a second	2nd	CAD and CAM
	3rd	Software and hardware for CAD/CAM, Functioning of CAD/CAM system
	4th	Features and characteristics of CAD/CAM system, Application areas for CAD/CAM
9th	1 st	Review class and Discussion
	2nd	Introduction to CNC Machines , Elements of CNC machines
	3rd	Machine Structure
	4th	Guide ways/Slide ways and its types
10th	l st	Drives and types. Spindle drives
	2nd	Feed drive
	3rd	Spindle and Spindle Bearings
	4th	Review class and Discussion
11 t h	1st	Assignment Evaluation & Class Test
	2nd	PROGRAMMABLE LOGIC CONTROLLERS(PLC):
,	* 3rd	Introduction, Definition and Advantages of PLC, Selection and uses of PLC
	4th	Architecture basic internal structures
12th	1st	Input/output Processing and Programming
	2nd	Mnemonics, Master and Jump Controllers
	3rd	Review class and Discussion
	4th	Assignment Evaluation & Class Test
l3th	1st	MECHANICAL ACTUATORS:
8	2nd	Machine, Kinematic Link, Kinematic Pair
	3rd	Mechanism, Slider crank Mechanism
	4th	-Gear Drive, Spur gear, Bevel gear, Helical gear, worm gear
4th	lst	Belt & Belt drive
	2nd	Electrical Actuator: Switches and relays, Solenoids
	3rd	D.C Motors

	4th	A.C Motors
15th	1 st	Stepper Motors, Specification and control of stepper motors
	2nd	Servo Motors D.C & A.C
	3rd	Review class
	4th	Assignment Evaluation & Class Test

Day af Joy & Sahoo Signature of the faculty

PRI R.K Institute of Engg & Tech Kantapada, Niali, Cuttack

LESSON PLAN

Discipline : Mechanical	Semester: 5 th Sem	Name of the Teaching Faculty: Dayed Joti Sahov Semester From Date: 01-10-21 To Date: No. Of -08.01-22
Engineering		Dayer Jot - 21 To Date: No. Of - 08.01.22
Subject: Mechatronics	No. Of Days/Week	Semester From Date: 01-10-91
Subject. Meenal entry	Class Allotted DY	Weeks: 15
Week	Class Day	Theory/Practical Topics INTRODUCTION TO MECHATRONICS:
lst]st	k disadvantages of Mechanometer
121		Definition, Advantages & under an e Application of Mechatronics, Importance of mechatronicsir
	2nd	
	3rd	Components of a Mechatronics System
	4th	Review class and Discussion
	lst	Assignment Evaluation & Class Test
2nd	2nd	SENSORS AND TRANSDUCERS:
	2114	Definition and classification of transducer
	3rd	Classification of Transducer Electromechanical Transducers
	4th	Transducers Actuating Mechanisms
3rd	1st	Sensors and its classifications
	2nd	Displacement & Positions Sensors
	3rd	Electromechanical Transducers
	4th	Transducers Actuating Mechanisms
4th	1st	Sensors and its classifications
	2nd	Displacement & Positions Sensors
	3rd	Velocity and Motion sensors
1.	4th	Force and Pressure sensors.
5th	1st	Temperature sensors
U (1)	2nd	Light sensors ,
	3rd	Review class and Discussion
	4th	Assignment Evaluation & Class Test
6th	1st	DODOTICS.
	2nd	ROBOTICS: Definition, Function and laws of robotics

/	3rd	Types of industrial robots. Advantages, Disadvantages and
1500-1		Applications of robots
	4th	Robotic systems
7th	lst	Review class and Discussion
	2nd	Assignment Evaluation & Class Test
 The file addition of the The file addition of the 	3rd	ELEMENTS OF CNC MACHINES: Introduction to Numerical Control of machines
	4th	NC machines
8th	lst	CNC machine
	2nd	CAD and CAM
	3rd	Software and hardware for CAD/CAM, Functioning of CAD/CAM system
	4th	Features and characteristics of CAD/CAM system, Application areas for CAD/CAM
9th	1 st	Review class and Discussion
	2nd	Introduction to CNC Machines , Elements of CNC machines
-	3rd	Machine Structure
	4th	Guide ways/Slide ways and its types
10th] st	Drives and types. Spindle drives
	2nd	Feed drive
	3rd	Spindle and Spindle Bearings
	4th	Review class and Discussion
11th	1st	Assignment Evaluation & Class Test
	2nd	PROGRAMMABLE LOGIC CONTROLLERS(PLC):
,	e 3rd	Introduction, Definition and Advantages of PLC, Selection and uses of PLC
	4th	Architecture basic internal structures
2th	1st	Input/output Processing and Programming
	2nd	Mnemonics, Master and Jump Controllers
20 - 10	3rd	Review class and Discussion
	4th	Assignment Evaluation & Class Test
3th	1st	MECHANICAL ACTUATORS:
(b)	2nd	Machine, Kinematic Link, Kinematic Pair
	3rd	Mechanism, Slider crank Mechanism
	4th	Gear Drive, Spur gear, Bevel gear, Helical gear, worm gear
th	lst	Belt & Belt drive
	2nd	Electrical Actuator: Switches and relays, Solenoids
	3rd	D.C Motors

, Contraction of the second se

15th	4th	A.C Motors
	1st	Stepper Motors, Specification and control of stepper motors
	2nd	Servo Motors D.C & A.C
	3rd	Review class
	4th	Assignment Evaluation & Class Test

14

Daystori Calut Signature the faculty

PRINCIPAL R.K Institute of Engg & Tech Kantapada, Niali, Cuttack

LESSON PLAN

Discipline : Mechanical Engineering	Semester: 5 th Sem	Name of the Teaching Faculty; Dayal Joti Schoo
Subject: Mechatronics	No. Of Days/Week	Semester From Date: 15-69.22 To Date: No. Of 2:23
Subject. Mechanomes	Class Allotted 54	Weeks: 15
Week	Class Day	Theory/Practical Topics
lst	lst	INTRODUCTION TO MECHATRONICS:
		Definition, Advantages & disadvantages of Mechatronics.
	2nd	Application of Mechatronics, Importance of mechatronicsin
- 0000	3rd	Components of a Mechatronics System
	4th	Review class and Discussion
2nd	1st	Assignment Evaluation & Class Test
2))4	2nd	SENSORS AND TRANSDUCERS:
		Definition and classification of transducer
	3rd	Classification of Transducer
	4th	Electromechanical Transducers
3rd	1st	Transducers Actuating Mechanisms
2000	2nd	Sensors and its classifications
- 12. · · · ·	3rd	Displacement & Positions Sensors
	4th	Electromechanical Transducers
4th	lst	Transducers Actuating Mechanisms
	2nd	Sensors and its classifications
and the second se	3rd	Displacement & Positions Sensors
	4th	Velocity and Motion sensors
5th	lst	Force and Pressure sensors.
	2nd	Temperature sensors
	3rd	Light sensors .
	4th	Review class and Discussion
ith	1st	Assignment Evaluation & Class Test
ош 	2nd	ROBOTICS: Definition, Function and laws of robotics

	3rd	Types of industrial robots, Advantages, Disadvantages and
		Applications of robots
7th	4th	Robotic systems
/th	1 st	Review class and Discussion
	2nd	Assignment Evaluation & Class Test
	3rd	ELEMENTS OF CNC MACHINES: Introduction to Numerical Control of machines
	4th	NC machines
8th	1 st	CNC machine
	2nd	CAD and CAM
	3rd	Software and hardware for CAD/CAM, Functioning of CAD/CAM system
0.1	4th	Features and characteristics of CAD/CAM system, Application areas for CAD/CAM
9th	1 st	Review class and Discussion
	2nd	Introduction to CNC Machines, Elements of CNC machines
	3rd	Machine Structure
	4th	Guide ways/Slide ways and its types
lOth	lst	Drives and types. Spindle drives
	2nd	Feed drive
	3rd	Spindle and Spindle Bearings
	4th	Review class and Discussion
1th	1st	Assignment Evaluation & Class Test
and a second	2nd	PROGRAMMABLE LOGIC CONTROLLERS(PLC):
'	° 3rd	Introduction, Definition and Advantages of PLC, Selection and uses of PLC
	4th	Architecture basic internal structures
2th	1st	Input/output Processing and Programming
	2nd	Mnemonics, Master and Jump Controllers
	3rd	Review class and Discussion
	4th	Assignment Evaluation & Class Test
th	1st	MECHANICAL ACTUATORS:
	2nd	Machine, Kinematic Link, Kinematic Pair
1 10 100	3rd	Mechanism, Slider crank Mechanism
-	4th	Gear Drive, Spur gear, Bevel gear, Helical gear, worm gear
h	1st	Belt & Belt drive
	2nd	Electrical Actuator: Switches and relays, Solenoids
	3rd	D.C Motors

	4th	A.C Motors
15th	1 st	Stepper Motors, Specification and control of stepper motors
	2nd	Servo Motors D.C & A.C
	3rd	Review class
	4th	Assignment Evaluation & Class Test

1

Day of 5 your Lahow Signature of the faculty

PRINCIPAL R.K Institute of Engg & Tech Kantapada, Niali, Cuttack

Š.

Discipline:- MECHANICAL	Semester: 5 TH	Name of the teaching faculty:- Rama chandra Prodhan	
Subject. DME	No. Of days / per week class allotted:- OY	Semester 5かり from date: 01-09-20 To Date: 31-12-20 No. Of weeks:- 15	
Week	Class day	Theory/ Practical Topics :	
	lst	Introduction to Machine Design & Classify it	- 25
1 st	2nd	Different mechanical engineering materials used in design with their uses and their mechanical and physical	
	3rd	uses and their mechanical and physical properties Mechanical properties of Engineering material	
	4th	Stress Strain Curved for MS & CI with Salient Point	
_	1st	Modes of Failure of elastic deflection, General Yielding & Fracture	
2 ND	2nd	State the Factor gorverning the design of machine elements	
_	3rd	State the Factor gorverning the design of machine elements	
	4th	Describe design Procedure	
	1st	Joints and their Classification	
RD	2nd	State types of welded Joint	
	3rd	State advantages of welded joint over other	
	4th	Design of welded joints for eccentic load	
	1st	State types of rivetted joint and types of rivet	-
тн	2nd	Describe failure of rivetted joint	
	3rd	we determine strength and efficiency of rivetted joints	
	4th	Determine Strength & Efficiency of Rivetted Joint	-
	1st	Design rivetted joint for pressure vessel	

10 TO	2nd	Solve numerical problems on weld
	3rd	Solve numerical problems on rivetted joints
	4th	Solve numerical problems on rivetted joints
	1st	State function of Shafts
н	2nd	State materials for shafts
н	3rd	Design of solid & hollow shafts to transmit a given power and given rpm on basis of strength and rigidity
	4th	Design of solid & hollow shafts to transmit a given power and given
ì	1st	Design of solid & hollow shafts to transmit a given power and given rpm on basis of strength and rigidity
ты	2nd	State stardard size of shafts as per I.S referring data book
тн	3rd	State function of keys, types of keys and materials of keys
	4th	Describe failure of keys, effect of keyway and problem
	1st	Design of rectangular sunk key by using empirical relation for given diameter of shafts
TH	2nd	State specification of parallel key, gibhead key, tapper key as per I.S
8 TH	3rd	Solve numericals on design of shafts and keys
	4th	Solve numericals on design of shafts and keys
	1st	Design of Shafts Coupling
74	2nd	Requirements of Good Shaft Coupling
9 ^{тн}	3rd	Types of Coupling
	4th	Design of Sleeve or Muff Coupling
	1st	Design of Clamp and Compression Coupling
1 oTH	2nd	Solve Numericals
10 TH	3rd	Solve Numericals
	4th	Solve Numericals Material Used for Helical Spring
	1st	SWG Wire (Data Book reference)
11 TH	2nd	Terms used in Compression Helical Spring
	3rd	Stress in Helical spring of circular wire
	4th	

_			
	1st	Deflection of helical Spring of Circular Wire	
,н	2nd	Surge of Spring	
-	3rd	Surge of Spring	
	4th	Solve Numerical in design of Closed Coil Helical Compression Spring	
	1st	Solve Numerical in design of Closed Coil Helical Compression Spring	
3 TH	2nd	DOUBT CLEARING	
	3rd	Solve Numerical	
	4th	Solve Numerical	
	1st	Solve Numerical	
	2nd	Solve Numerical	
14 TH	3rd	Solve Numerical	
	4th	REVISION	
	1st	REVISION	
	2nd	REVISION	
15 ^{тн}	3rd	REVISION	-
	4th	CLASS TEST	

LINCHICK

Discipline:- MECHANICAL	Semester: 5 TH	Name of the teaching faculty:- Ramachandra Prodhas
Subject. DME	No. Of days / per week class allotted:- ひく	Semester 5th from date: 01.10.21 To Date: 08.01.22 No. Of weeks:- US
Week	Class day	Theory/ Practical Topics :
	1st	Introduction to Machine Design & Classify it
1 st	2nd	Different mechanical engineering materials used in design with their uses and their mechanical and physical properties
	3rd	Mechanical properties of Engineering material
	4th	Stress Strain Curved for MS & CI with Salient Point
	1st	Modes of Failure of elastic deflection, General Yielding & Fracture
2 ND	2nd	State the Factor gorverning the design of machine elements
	3rd	State the Factor gorverning the design of machine elements
	4th	Describe design Procedure
	1st	Joints and their Classification
3 RD	2nd	State types of welded Joint
-	3rd	State advantages of welded joint over other
-	4th	Design of welded joints for eccentic load
	1st	State types of rivetted joint and types of rivet
4 ^{тн}	2nd	Describe failure of rivetted joint
	3rd	we determine strength and efficiency of rivetted joints
	4th	Determine Strength & Efficiency of Rivetted Joint
e.	1st	Design rivetted joint for pressure vessel

	2nd	Solve numerical problems on weld	di dine
	3rd	Solve numerical problems on rivetted joints	
	4th	Solve numerical problems on rivetted joints	
es indiain	1st	State function of Shafts	99. 19-Mirth
4	2nd	State materials for shafts	
	3rd	Design of solid & hollow shafts to transmit a given power and given rpm on basis of strength and rigidity	
	4th	Design of solid & hollow shafts to transmit a given power and given rpm on basis of strength and rigidity	
1	1st	Design of solid & hollow shafts to transmit a given power and given rpm on basis of strength and rigidity	
н	2nd	State stardard size of shafts as per I.S referring data book	
	3rd	State function of keys, types of keys and materials of keys	
	4th	Describe failure of keys, effect of keyway and problem	and and the
	1st	Design of rectangular sunk key by using empirical relation for given diameter of shafts	
тн	2nd	State specification of parallel key, gibhead key, tapper key as per I.S	
	3rd	Solve numericals on design of shafts and keys	
	4th	Solve numericals on design of shafts and keys	
	1st	Design of Shafts Coupling	
9 ^{⊤н}	2nd	Requirements of Good Shaft Coupling	
9	3rd	Types of Coupling	and consequences
	4th	Design of Sleeve or Muff Coupling	
	1st	Design of Clamp and Compression Coupling	
10 TH	2nd	Solve Numericals	
10	3rd	Solve Numericals	
	4th	Solve Numericals	
	1st	Material Used for Helical Spring	1
11 TH	2nd	SWG Wire (Data Book reference)	1
11	3rd	Terms used in Compression Helical Spring	1
	4th	Stress in Helical spring of circular wire	

		Deflection of helical Spring of Circular Wire	
7 -	1st	Deflection of nelical spring of chroans	
	2nd	Surge of Spring	
,н		Surge of Spring	
	3rd	Solve Numerical in design of Closed Coil Helical Compression Spring	
	4th	Solve Numerical in design of Closed Confidence and	
1.00	1st	Solve Numerical in design of Closed Coil Helical Compression Spring	
13 TH	2nd	DOUBT CLEARING	
	3rd	Solve Numerical	
		Solve Numerical	
	4th	Solve Numerical	
	1st		
- T H	2nd	Solve Numerical	
14 TH	3rd	Solve Numerical	
	4th	REVISION	
	1st	REVISION	
15 [™]		REVISION	
	2nd	REVISION	
	3rd	CLASS TEST	
	4th		

*

Discipline:-	Semester:	Name of the teaching faculty:-	
MECHANICAL	5 TH	Rama chandrog prodhan	
Subject. DME	No. Of days / per week class allotted:- 4	Rama chandrog Prodhan Semester 5ty from date: 16.9-22 To Date: 21.01.23 No. Of weeks:- 15	
Week	Class day	Theory/ Practical Topics :	
1 st	1st	Introduction to Machine Design & Classify it	
	2nd	Different mechanical engineering materials used in design with their uses and their mechanical and physical properties	
	3rd	Mechanical properties of Engineering material	
	4th	Stress Strain Curved for MS & CI with Salient Point	
2 ND	1st	Modes of Failure of elastic deflection, General Yielding & Fracture	
	2nd	State the Factor gorverning the design of machine elements	
	3rd	State the Factor gorverning the design of machine elements	
	4th	Describe design Procedure	
	1st	Joints and their Classification	
3 RD	2nd	State types of welded Joint	
	3rd	State advantages of welded joint over other	
	4th	Design of welded joints for eccentic load	19 19
4 TH	1st	State types of rivetted joint and types of rivet	Ś
	2nd	Describe failure of rivetted joint	
	3rd	we determine strength and efficiency of rivetted joints	
	4th	Determine Strength & Efficiency of Rivetted Joint	
	1st	Design rivetted joint for pressure vessel	

5 TH	2nd	Solve numerical problems on weld	
	3rd		
		Solve numerical problems on rivetted joints	1
	4th	Solve numerical problems on rivetted joints	
6 TH	1st	State function of Shafts	0
	2nd		
		State materials for shafts	
	3rd	Design of solid & hollow shafts to transmit a given power and given	
	4th	PILLUI DASIS OF Strongth and ministration	-
2.0		Design of solid & hollow shafts to transmit a given power and given rpm on basis of strength and rigidity	
	1st	besign of solid & hollow shafts to transmit a given power and given	
	2nd	i pin on basis of strength and rigidity	
7 TH		State stardard size of shafts as per I.S referring data book	
	3rd	State function of keys, types of keys and materials of keys	
	4th		
	1st	Describe failure of keys, effect of keyway and problem	
		Design of rectangular sunk key by using empirical relation for given	lete s
отн	2nd	uidinerer of shatts	
8 TH	2	State specification of parallel key, gibhead key, tapper key as per I.S	
	3rd	Solve numericals on design of shafts and keys	
	4th	Solve numericals on design of shafts and keys	
	1st	Design of Shafts Coupling	
	2nd		
9 TH	2110	Requirements of Good Shaft Coupling	-635-
	3rd	Types of Coupling	
	4th	Design of Sleeve or Muff Coupling	
10 TH	1st	Design of Clamp and Compression Coupling	
	2nd	Solve Numericals	-01 - 198-
	3rd	Solve Numericals	
	4th	Solve Numericals	Marco (
	1st	Material Used for Helical Spring	10 Y
	2nd	SWG Wire (Data Book reference)	
11 TH	3rd	Terms used in Compression Helical Spring	
	514		
	4th	Stress in Helical spring of circular wire	-

	1st	Deflection of helical Spring of Circular Wire	
4			
12 TH	2nd	Surge of Spring	
	3rd	Surge of Spring	
	4th	Solve Numerical in design of Closed Coil Helical Compression Spring	
	1st	Solve Numerical in design of Closed Coil Helical Compression Spring	
13 [™]	2nd	DOUBT CLEARING	
	3rd	Solve Numerical	
	4th	Solve Numerical	
	1st	Solve Numerical	
14 TH	2nd	Solve Numerical	
14	3rd	Solve Numerical	
	4th	REVISION	
	1st	REVISION	
T 11	2nd	REVISION	
15 [™]	3rd	REVISION	
	4th	CLASS TEST	

a conservation of the server o