

Discipline:- MECHANICAL ENGG.	SEM:-4TH	NameofTeachingFaculty:-PRAVAT KUMAR SWAIN
SUB:- Theory of machine (TH-1)	No of Days /per week class allotted:-4	Semester From Date:-10.03.2022ToDate:10.06.2022 No of Weeks-15
Week	Class Day	TheoryTopics
1ST	1st	Introduction,Link,kinematicchain
	2nd	Mechanism,machine
	3rd	Fourbar linkmechanism
	4th	Inversion
2ND	1st	Lower pairandhigher pair,
	2nd	Cam andfollowers
	3rd	Cam andfollowers
	4th	Chapter-1Discussion of chapter and &probable Questions
3RD	1st	Frictionbetweennutandscrewfor squarethread
	2nd	Screw jack, Friction Related Problem
	3rd	Bearinganditsclassification,Descriptionofroller,needleroller& ball bearings
	4th	Torquetransmissioninflat pivotbearings,
4TH	1st	Solve Numerical
	2nd	Torquetransmissioninconicalpivotbearings,RelatedProblem
	3rd	Torquetransmissioninflatcollarbearings single and multiple type,RelatedProblem
	4th	Torquetransmissionfor singleandmultipleclutches,Related Problem
5TH	1st	Solve Numerical
	2nd	Workingofsimplefrictionalbrakes
	3rd	Workingof Absorptiontypeof dynamometer
	4th	Solved numerical and probable question
6TH	1st	Conceptofpowertransmission,Typeofdrives,belt,gearand chain drive
	2nd	Computationofvelocityratio
	3rd	Lengthofbelts(open),RelatedProblem
	4th	Lengthofbelts(cross),RelatedProblem

7th	1st	Ratioofbelttensions,RelatedProblem
	2nd	Centrifugaltension,RelatedProblem
	3rd	Initialtension,RelatedProblem
	4th	V-beltsandV-beltspulleys,crowningofpulleys
8th	1st	Geardrivesanditsterminology
	2nd	Geartrains,Workingprincipleofsimplegear trains
	3rd	Workingprincipleofcompoundgeartrains
	4th	Workingprincipleofrevertedgeartrains
9th	1st	Workingprincipleof epicyclicgeartrains
	2nd	Functionofgovernor,Classificationofgovernor
	3rd	WorkingofWattgovernors,
	4th	Solve RelatedProblem
10th	1st	WorkingofPortergovernors,RelatedProblem
	2nd	WorkingofProelgovernors, related problem
	3rd	WorkingofHartnellgovernors,
	4th	Solve RelatedProblem
11th	1st	Sensitivity,stabilityandisochronism
	2nd	Functionofflywheel,Comparisonbetween flywheel&governor
	3rd	Fluctuationofenergyandcoefficient offluctuation ofspeed
	4th	Solve numerical of above chapter
12th	1st	Discussionof probable question
	2nd	Concept of staticanddynamicbalancing
	3rd	Staticbalancingofrotatingparts
	4th	Principlesofbalancingofreciprocatingparts
13th	1st	Principlesofbalancingofreciprocatingparts
	2nd	Causesandeffect ofunbalance,
	3rd	Differencebetweenstaticanddynamicbalancing
	4th	Discussionof probable question
	1st	Vibrationandrelatedterms(Amplitude,time

14th		period and frequency, cycle)
	2nd	Classification of vibration
	3rd	Basic concept of natural vibration
	4th	Basic concept of forced vibration
15th	1st	Basic concept of damped vibration
	2nd	Causes & remedies of vibration
	3rd	Discussion of probable question
	4th	Discussion of probable question

Learning Resources:

Sl No	Name of the Book	Author Name	Publisher
1	Text Book of Theory of Machine	R.S Khurmi	S.Chand
2	Text Book of Theory of Machine	R.K. Rajput	S.Chand
3	Text Book of Theory of Machine	P.L. Ballany	Dhanpat Rai
4	Text Book of Theory of Machine	Thomas Bevan	Pearson