PARUL POLYTECHNIC INSTITUTE (1ST SHIFT)

STUDENT INFORMATION HANDBOOK

DEPT. OF MECHANICAL ENGINEERING

3rd SEMESTER

2016-17

P.O.LIMDA, TA. WAGHODIA, DIST VADODARA
PH. 02668-260296

ACADEMIC CALANDER – 2016-17 (ODD SEMESTER)

3rd SEMESTER (JUNE-2016 TO OCTOBER-2016)

Commencement of semester	20th June 2016
1st Internal Mid Semester Exam (30 marks)	1st- 3rd August 2016
Declaration of 1st Internal Result (30 marks)	10th August 2016
2nd Internal Mid Semester Exam (70 marks)	26TH Sep – 1st Oct. 2016
Declaration of 2nd Internal Result (70 marks)	7th Oct.2016
Block Mid Exam	13th-15th Oct. 2016
Submission of Term Work	17th -20th Oct. 2016
End of Semester	21/10/2016
Parents Meeting	15th Sep 2016
Diwali Vacation	27th Oct – to 12th Nov 2016s
University Exam Commencement	17th Nov 2016

➢ List of Holidays in 2016-17

1. 06/07/2016 Ramzan Idd
2. 15/08/2016 Independence day
3. 18/08/2016 Rakshabandhan
4. 25/08/2016 Janmashtmi
5. 05/09/2016 Ganesh Chaturthi
6. 10/10/2016 Bakri Idd (Linked Holiday)
7. 11/10/2016 Dusshera
8. 12/10/2016 Mahurram

LIST OF FACULTY ADVISOR

Sr. No	Class	Faculty Name	Contact No
1.	A	SAMIRAN SANDILYA	9127598448
2.	A	RUSHIKESH PRAJAPATI	9687600756
3.	B	ANKIT VAISHNANI	9824395272
4.	B	TARUN PATEL	9998491048
5.	C	GAUTAM CHUDASMA	9099282574
6.	C	ALPESH PARMAR	9574613364
7.	D	PAYAL RATHOD	8866046541
8.	D	JIGNESH PATEL	9974861746
9.	E	YOGESHWARI PATEL	9427640542
10.	E	DHARAMVEER PUVAR	8866533207
11.	F	HITESH BIDWE	8460544259
12.	F	KISHAN CHANDRANA	8460544259
13.	G	PRATIKRAJSINH GOHIL	9638179781
14.	G	SHUBHAM PRAJAPATI	8460063318
15.	H	PRADYUMANSINH GAADHE	9099786370
16.	H	HILAY PATEL	9824935145

TOP FIVE STUDENTS IN 1st SEMESTER

ENROLLMENT NO	NAME	SPI
156390319520	DATTA SAURABH GAUTAM	10.00
156390319266	RAJAVADHA M HAFIJ A SATAR	9.86
156390319059	GIRI KRUNAL ASHOKBHAI	9.29
156390319316	SHARMA VATSAL MUKESHKUMAR	9.11
156390319032	CHAUHAN SAHILSINH YOGENDRASINH	9.07

List of Faculty

SUBJECT CODE	SUBJECT NAME	LAB ROOM NO.	FACULTY CODE	FACULTY NAME
HRM	HUMAN RESOURCE MANAGEMENT	CLASS	NJM DP	NAINITA MISTRY DHARMIL PATEL
FMHM	FLUID MECHANICS AND HYDRAULIC MACHINE	112 PPI A	HB PG SS AV GC YP PR PG	HITESH BIDVE PRATIKRAJ SINH GOHIL SAMIRAN SANDILYA ANKIT VAISHNAVI GAUTAM CHUDASAMA YOGESHVARI PATEL PAYAL RATHOD PRADUMAN GAADHE
THERMO	THERMODYNAMICS	NA	TP SP JP KC	TARUN PATEL SHUBHAM PRAJAPATI JIGNESH PATEL KISHAN CHANDARANA
CAMD	COMPUTER AIDED MACHINE DRAWING	ARCH 303	TP JP YP RP GC PR SP	TARUN PATEL JIGNESH PATEL YOGESHWARI PATEL RUSHIKESH PRAJAPATI GAUTAM CHUDASAMA PAYAL RATHOD SHUBHAM PRAJAPATI
SOM	STRENGTH OF MATERIALS	113	SG VM TP YD AS	SALMAN GANCH VAISHALI MAHAVAR TEJAS PANDYA YESHA DESAI ATIF SHAIKH
ME-I	MANUFACTURING ENGINEERING-I	W/S	AP DP HP RP	ALPESH PARMAR DHARAMVEER PUWAR HIALAY PATEL RUSHIKESH PRAJAPATI
AEEE	APPLIED ELECTRICAL & ELECTRONIC ENGINEERING	205	HV	HUSAIN VORA

MECHANICAL ENGINEERING DEPARTMENT

3rd semester Time Table

PARUL POLYTECHNIC INSTITUTE
Ta. Waghodia, Dist : Vadodara

DEPT : MECHANICAL ENGG.
ACA YR : 2016-2017

CLASS :

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
07:30 to 08:25						
08:25 to 09:20						
09:20 to 09:30	RECESS					
09:30 to 10:25						
10:25 to 11:20						
11:20 to 11:50	RECESS					
11:50 to 12:45						
12:45 to 13:40						

SUBJECT:	FACULTY NAME:
ME-1	
THERMO	
FMHM	
SOM	
AEEE	
HRM	

Teaching Scheme of 3rd semester (Mechanical Engineering)

GUJARAT TECHNOLOGICAL UNIVERSITY

BRANCH CODE:19 DIPLOMA PROGRAMME IN MECHANICAL ENGINEERING										
SEMESTER - III										
COURSE CODE	COURSE TITLE	TEACHING SCHEME				EXAMINATION SCHEME				
		L	T	P	CREDITS (L+T+P)	THEORY MARKS		PRACTICAL MARKS		GRAND TOTAL
						ESE	PA	ESE	PA	
3331901	MANUFACTURING ENGINEERING-I	3	0	4	7	70	30	40	60	200
3331902	THERMODYNAMICS	3	0	0	3	70	30	0	0	100
3331903	FLUID MECHANICS AND HYDRAULIC MACHINES	4	0	2	6	70	30	20	30	150
3331904	STRENGTH OF MATERIALS	3	0	2	5	70	30	20	30	150
3331905	APPLIED ELECTRICAL AND ELECTRONIC ENGINEERING	3	0	2	5	70	30	20	30	150
3331906	COMPUTER AIDED MACHINE DRAWING	0	0	4	4	0	0	40	60	100
3330001	HUMAN RESOURCE MANAGEMENT	2	0	0	2	70	30	0	0	100
TOTAL		18	0	14	32	420	180	140	210	950

ESE : END SEMESTER EXAM
PA: PROGRESSIVE ASSESSMENT

L: LECTURE

P: PRACTICAL
T: TUTORIAL

ESE for Practical includes Viva/Practical exam/Performance etc.

PA for Practicals includes TW/Report writing/Mini Project/Seminar etc. related to practicals

PA for Theory includes Written Exam /Assignment/Tutorial Work/Mini Project/Quiz/Presentation or Combination of all with prior intimation to the students at beginning of term

Syllabus for 3rd Semester (Mechanical Engineering)

HUMAN RESOURSE MANAGEMENT
(Code: 3330001)

Teaching Scheme (In Hours)			Total Credits (L+T+P)	Examination Scheme				
				Theory Marks		Practical Marks		Total Marks
L	T	P	C	ESE	PA	ESE	PA	
2	0	0	2	70	30	0	0	100

Unit	Unit Title	Teaching Hours	Distribution of Theory Marks			
			R Level	U Level	A Level	Total Marks
I	Introduction	02	02	03	00	05
II	Human needs, relations and values	04	05	05	00	10
III	Behavioural dynamics	08	06	07	07	20
IV	Leadership Development	08	05	05	10	20
V	Change and stress management	06	02	08	05	15
Total		**28**	**20**	**28**	**22**	**70**

Legends: R = Remember; U = Understand; A = Apply and above levels (Bloom's revised taxonomy)

List of Books:

Sr. No.	Title of Books	Author	Publication
1	Managing people at work.	Ahuja, Jain & Chhabr	Dhanpatrai and Sons.
2	Human Resource Management	D.R.Patel, Y.R.Joshi	Atul Prakashan.
3	Human Resource Management	Biswajeet Pattanayak	PHI
4	Human Resource Management	K. Aswathappa	Tata McGraw Hill
5	Human Resource Management	V. S. P. Rao	
6	Seven Habits of successful people	Stephen R. Covey	Free Press
7	Competency Framework for HRM	B.L. Gupta	Concept Publishing Company, New Delhi, First Edition 2011

8	Designing and Managing human resources systems	Pareek, Udai and Rao T.V.	Oxford and TBH Publishing Co., New Delhi, 1981
9	Behavioural processes in organisation	Pareek, Udai and Rao T.V.	Oxford and TBH Publishing Co., New Delhi, 1981

MANUFACTURING ENGINEERING - I
(Code: 3331901)

COURSE DETAILS

Teaching Scheme (In Hours)			Total Credits (L+T+P)	Examination Scheme				
				Theory Marks		Practical Marks		Total Marks
L	**T**	**P**	**C**	**ESE**	**PA**	**ESE**	**PA**	
3	0	4	7	70	30	40	60	**200**

Legends: **L** -Lecture; **T** -Tutorial/Teacher Guided Student Activity; **P** -Practical; **C** - Credit; **ESE**-End Semester Examination; **PA** -Progressive Assessment

Unit	Unit Title	Teaching Hours	Distribution of Theory Marks			
			R Level	U Level	A Level	Total Marks
I	Introduction to manufacturing processes.	03	03	02	00	05
II	Metal working processes.	12	05	07	08	20
III	Metal casting processes.	12	05	07	08	20
IV	Non metal moulding processes.	03	02	03	00	05
V	Metal Joining Processes.	12	05	07	08	20
Total		**42**	**20**	**26**	**24**	**70**

List of practical:-

S. No.	Unit Number	Practical/Exercise (Course Outcomes in Psychomotor Domain according to NBA Terminology)	Hours
1	II	Prepare two jobs using hot forging/hot smithy process. This includes cutting of raw material and preparation of pre forged parts.	06
2	II	Demonstration of spinning process with preparation of a job.	04
3	II	Visit a nearby Rolling mill/Hot-Cold material processes, allied manufacturing processes industry and prepare a two page report comprises of details(type, material, process, etc) of items produced, quantities, different sections, equipments used with specification, process parameters being used and consumables.	--
4	III	Demonstration of metal melting, metal pouring, metal casting and casting finishing. Also demonstrate and prepare a report on casting defects. (Use wax in place of molten metal for the purpose of demonstration.)	04
5	III	Prepare a pattern drawing, pattern and core from the given component/drawing.	06
6	III	Prepare a mould using prepared pattern, core and moulding sand. Also pour molten metal and get the casting.	06
7	III	Visit a nearby foundry and prepare a two page report comprises of details (type, material, process, etc) of items produced, quantities, different sections, equipments used with specification, process parameters being used and consumables.	--
8	IV	Prepare at least two jobs containing minimum 4 parts in each using arc welding. This includes cutting of raw material and preparation of pre-weld parts and use tacks and continuous welding in each job.	08
9	IV	Prepare at least two jobs using gas cutting and gas welding. This includes cutting of raw material and preparation of pre-weld parts. Minimum 3 parts for each job should be taken and should include tacks and continuous welding.	06
10	IV	Prepare a job using spot/seam resistance welding. This also includes cutting of raw material and preparation of pre-weld parts.	04
11	IV	Prepare two jobs, one using soldering and another using brazing. This also includes cutting of raw material and preparation of pre weld parts.	06
12	IV	Visit a nearby fabrication industry and prepare a two page report comprises of types of item produced, quantities, different sections, equipments used with specification and consumables.	--
13	ALL	SCHOOL WITHIN SCHOOL: Each student will present and will prepare report on: a. His/her observation for the jobs made. b. His/her experience during industrial visits. c. Process parameters and their effects.	06
		TOTAL	**56**

List of Books:

Sr no.	Title of Books	Author	Publication
1	Workshop Technology I & II	J. A. Schey	Tata MacGraw Hill Education
2	Workshop Technology I & II	Raghuwanshi	Dhanpat Rai and Sons
3	Manufacturing Processes	M. L. Begman	Wiley India
4	Production Technology	R.K. Jain and S.C. Gupta	Khanna publication
5	Welding Engineering	B.E. Rossi	Jefferson Publications

THERMODYNAMICS
(Code: 3331902)

COURSE DETAILS

Teaching Scheme (In Hours)			Total Credits (L+T+P)	Examination Scheme				
				Theory Marks		Practical Marks		Total Marks
L	T	P	C	ESE	PA	ESE	PA	
3	0	0	3	70	30*	00	00	100

Legends: L -Lecture; **T** -Tutorial/Teacher Guided Student Activity; **P** -Practical; **C** - Credit; **ESE**-End Semester Examination; **PA** -Progressive Assessment.

Unit	Unit Title	Teaching Hours	Distribution of Theory Marks			
			R Level	U Level	A Level	Total Marks
I	Basic concepts of thermodynamics	06	04	03	03	10
II	First law of thermodynamics	06	03	03	04	10
III	Ideal gases and processes	10	04	06	06	16
IV	Second law of thermodynamics	10	04	07	05	16
V	Thermodynamic cycles	10	04	06	08	18
Total		**42**	**19**	**25**	**26**	**70**

Legends: R = Remember; U = Understand; A = Apply and above levels (Bloom's revised taxonomy)

List of Books:

Sr. No.	Title of Books	Author	Publication
1	Thermodynamics	R. Yadav	CPH
2	Thermodynamics for Engineers	M.L. Mathur	Dhanpatrai & sons
3	Heat Engines	C.S. Shah & N.C. Pandya	Charotar Publi. House
4	Applied Thermodynamics	R.C. Patel	Acharya Book Depot

FLUID MECHANICS AND HYDRAULIC MACHINES
(Code: 3331903)

Teaching Scheme (In Hours)			Total Credits (L+T+P)	Examination Scheme				
				Theory Marks		Practical Marks		Total Marks
L	T	P	C	ESE	PA	ESE	PA	150
4	0	2	6	70	30	20	30	

Legends: L -Lecture; **T** -Tutorial/Teacher Guided Student Activity; **P** -Practical; **C** - Credit; **ESE**-End Semester Examination; **PA** -Progressive Assessment

Unit	Unit Title	Teaching Hours	Distribution of Theory Marks			
			R Level	U Level	A Level	Total Marks
I	Fluid and fluid properties	04	2	2	2	06
II	Fluid statics	07	2	3	4	9
III	Fluid kinematics	07	2	3	4	9
IV	Fluid dynamics and flow measurement	10	4	4	4	12
V	Flow through pipes	06	2	4	2	08
VI	Hydraulic pumps & prime movers	12	2	6	6	14
VII	Hydro pneumatics elements and devices	10	2	4	6	12
Total		**56**	**16**	**26**	**28**	**70**

List of practicals

S. No.	Unit No.	Practical/Exercises (Course Outcomes in Psychomotor Domain according to NBA Terminology)	Approx. Hrs. Required
1	I	Demonstrate various fluid properties.	2
2	II	Demonstrate and Measure pressure using: i. Various manometers. ii. Various Pressure gauges.	4
3	IV	Verify Bernoulli's theorem.	2
4	IV	Measure fluid flow by Venturimeter and Nozzle.	4
5	IV	Measure fluid flow by Orifice meter and "V" notch.	4
6	III & V	Estimate Reynolds number using given test rig.	2
7	V	Determine major and minor head loss through pipes.	2
8	VI	Perform testing of centrifugal pump as per BIS.	2
9	VI	Perform testing of reciprocating pump as per BIS.	2
10	VII	Demonstrate use of different hydraulic and pneumatic devices.	2
11	ALL	A group of 5-6 students will take any one hydraulic/ pneumatic device for study/repair purpose. They will : a: Study the same and will prepare required sketches. b: Explain working. c: Identify faults if not working. d: Repair minor faults. (This exercise has to be identified and given to the students in the beginning of term.).	2
		Total	**28**

List of Books:

S. No.	Title of Books	Author	Publication
1	Fluid mechanics& hydraulic Machines.	R.K.Bansal	Lakhsmi publication
2	Fluid mechanics& hydraulic Machines.	R.S.Khurmi	S.chand & Co.Ltd
3	Hydraulic & Hydraulic machines	R.C. Patel & A.D. Pandya	Acharya Book Depot
4	Fundamental of fluid mechanics	Dr. D.S. Kumar	Ketson Pub. house
5	Fluid mechanics& hydraulic machines	S.C. Gupta	PERSON Education

STRENGTH OF MATERIAL
(Code: 3331904)

Teaching Scheme (In Hours)			Total Credits (L+T+P)	Examination Scheme				
				Theory Marks		Practical Marks		Total Marks
L	T	P	C	ESE	PA	ESE	PA	
03	00	02	05	70	30	20	30	150

Legends: L - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** - Practical; **C** - Credit; **ESE** - End Semester Examination; **PA** - Progressive Assessment

Unit	Unit Title	Teaching Hours	Distribution of Theory Marks			
			R Level	U Level	A Level	Total Marks
I	**DIRECT STRESS & STRAIN**	08	02	04	08	14
II	**MOMENT OF INERTIA**	04	01	00	04	05
III	**S.F & B.M IN BEAM**	05	02	00	08	10
IV	**BENDING & SHEAR STRESSES IN BEAM**	05	04	00	06	10
V	**DEFLECTION OF BEAM**	04	00	00	04	04
VI	**COLUMN & STRUT**	03	00	00	04	04
VII	**COMBINED DIRECT & BENDING STRESSES**	04	01	06	00	07
VIII	**PRINCIPAL PLANE & PRINCIPAL STRESS**	04	02	05	00	07
IX	**TORSION**	03	01	00	04	05
X	**MECHANICAL PROPERTIES OF MATERIALS**	02	00	04	00	04
Total		**42**	**13**	**19**	**38**	**70**

List of practical

S. No.	Unit No.	Practical/Exercise	Apprx. Hrs. Required
1	I	Draw Stress Strain Curve for Tension Test on Ductile Materials like Mild Steel , Aluminium	04
2	I	Determine Young's Modulus of wire of Given Material	02
3	II	Calculate Moment of Inertia of Fly Wheel	02
4	VI	Demonstrate End Conditions of Column	02
5	X	Calculate Impact Value of Mild Steel using IZOD Impact Test Apparatus	02
6	X	Calculate Impact Value of Mild Steel using Charpy Impact Test	02
7	X	Calculate Brinell Hardness Number of given material	02
8	X	Calculate Hardness of given material using Rockwell Hardness machine	02
9	X	Find out Compressive Strength of C.I , M.S using Compression Testing Machine	02
10	I	Calculate at least Six Problems of Unit - I	02
11	III	Calculate at least Six Problems of Unit – III	02
12	VII	Calculate at least Six Problems of Unit VII	02
13	VIII	Calculate at least Six Problems of Unit VIII	02
		TOTAL	**28**

List of Books:

S. No.	Title of Books	Author	Publication
1	Strength of Material & Mechanics of Structures	Strength of Material & Mechanics of Structures	
2	Strength of Material	S RAMAMURTHAN	
3	Strength of Material	TimoShanku	
4	Theory of Structures	R S KHURMI	

APPLIED ELECTRICALS AND ELECTRONICS ENGINEERING.
(Code: 3331905)

Teaching Scheme (In Hours)			Total Credits (L+T+P)	Examination Scheme				
				Theory Marks		Practical Marks		Total Marks
L	T	P	C	ESE	PA	ESE	PA	150
3	0	2	5	70	30	20	30	

Legends: L -Lecture; **T** -Tutorial/Teacher Guided Student Activity; **P** -Practical; **C** - Credit;**ESE**-End Semester Examination; **PA** -Progressive Assessment.

Unit	Unit Title	Teaching Hours	Distribution of Theory Marks			
			R Level	U Level	A Level	Total Marks
I	Fundamentals of electrical engineering and magnetic circuit.	08	06	06	02	14
II	Electrical components, tools and instruments	10	04	04	08	16
III	Electrical machines, drives and transformers	12	08	06	06	20
IV	Electrical safety and protection	04	00	02	04	06
V	Electronic components and circuits	08	06	04	04	14
		42	**24**	**24**	**22**	**70**

Legends:R = Remember; U= Understand; A= Apply and above levels (Bloom's revised taxonomy)

List of books

S. No.	Title of Books	Author	Publication
1	Basic Electronics &Linear Circuits	Theraja, B.L.	McGraw Hill Education, New Delhi,
2	A text book of ElectricalTechnology vol.2	Theraja, B.L.	S.Chand Publication, New Delhi 2011 or latest
3	A Course In ElectricalAnd ElectronicMeasurements AndInstrumentation	Sawhney, A K	S.Chand Publication, New Delhi 2011 or latest
4	Basic electronics	Mehta ,V.K.	S.Chand Publication, New Delhi 2011 or latest

List of practical:-

S. No.	UnitNo.	Practical/Exercise(Course Outcomes in Psychomotor Domain according to NBA terminology)	Apprx. Hrs. Required
1	I	a: Demonstrate generation of electricity and explain various terminologies associated with it. b: Demonstrate difference between AC and DC. c: Verify Ohm's law.	04
2	I	Perform any one from following. a: Obtain the required voltages across the branches in the given network. b: Obtain the required incoming current at different nodes of the given network.	02
3	II	Do electrical wiring for given case/parameters using electrical wires/cables, components and tools. Test the same and measure applicable parameters/variables like resistance, current, power, voltage, power factor, etc. Also do following. a: Identify the cables and fuses along with their specifications. b: Identify and state specifications of various meterstaken in use.	04
4	III	Perform following.(Any two, but preferably all). a: Connect the single phase electric motor to start them (using the circuit diagram). b: Connect the three phase electric motor to start them (using the circuit diagram).. c: Connect the DC motors to start them. (using the circuit diagram).	02
5	III	Perform any one from following.(Do both if possible). a: Connect the synchronous machine to run as a generator. (using the circuit diagram). b: Connect the synchronous machine to run as a motor.	02
6	III	Identify the faults in the given electric motor.	02
7	III	a: Operate the given stepper motors for the given speeds. (using the circuit diagram). b: Operate the given servo motors for the given speeds. (using the circuit diagram).	02
8	IV	a: Use the earth tester and megger for the given installation. b: Select the most appropriate protective device for the given application. c: Use fuse, MCBs and ELCBs for attending repair tasks.	04
9	V	Use PCB for simple applications.	04
10	V	Use PLC Or Microcontroller for specific applications.	02
		Total	**28**

Computer aided Machine Drawing

(Code: 3331906)

Teaching Scheme (In Hours)			Total Credits (L+T+P)	Examination Scheme				
				Theory Marks		Practical Marks		Total Marks
L	T	P	C	ESE	PA	ESE	PA	100
0	0	4	04	0	0	40	60	

Legends: L - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** - Practical; **C** - Credit; **ESE** - End Semester Examination; **PA** - Progressive Assessment

list of practical:-

Ex. No.	Unit No.	Practical/Exercises (Course Outcomes in Psychomotor Domain according to NBA Terminology)	Approx. Hrs. Required
1	I	a. Indentify parts of computers. Recall basic knowledge to use computers. Use input devices. b. Prepare a report in tabular form on following. i. All parts of computer, specifications and uses of each part (Namely keyboard, mouse, monitor, processor, RAM, SMPS, Motherboard, etc.)	4
2	II	a. Prepare orthographic production drawings of 6-7 mechanical components (Minimum two should be based on real industrial components selected by student as student activity and approved by teacher) each made up of minimum 5-6 manufacturing operations using AutoCAD (Mechanical). Also take print outs of the same. b. Prepare report on following. i. Select at least two physical mechanical components (approved by teacher). Sketch them with dimensions. ii. Write steps to prepare each drawing using AutoCAD (Mechanical). Steps must include followings. A. Sketch of components at each step with dimensions. B. Sequence of commands with name, options and values. C.	16
3	III	a. Prepare assembly drawing made up of 5-6 mechanical components using AutoCAD (Mechanical) and take print out of it. b. Prepare report on following:	14

Ex. No.	Unit No.	Practical/Exercises (Course Outcomes in Psychomotor Domain according to NBA Terminology)	Approx. Hrs. Required
		i. Select physical mechanical assembly in group of 5-6 students (approved by teacher). Measure and draw them with dimensions. ii. Write steps to prepare each drawing using AutoCAD (Mechanical).Steps must include followings. A. Sketch of each components and assembly for the same. B. Sequence of commands with name, options and values..	
4	IV	a. Prepare 2D parametric drawings of 6-7 mechanical components (Minimum two should be based on physical components selected by student and approved by teacher as student activity) each made up of minimum 5-6 manufacturing operations using Pro/E (Creo)/Solid Edge. Use constraints and relations also for preparing at least two drawings. Also take print outs of the same. b. Prepare report on following. i. Select at least two mechanical components. (Approved by teacher). Sketch them with dimensions. ii. Write steps to prepare each drawing. Steps must include followings. A. Sketch of components at each step with dimensions. B. Sequence of commands with name, options and values.	08
5	V	a. Prepare given project (as specified in Unit IV) in group of 7-8 students using AutoCAD (Mechanical). Prepare orthographic drawings. b. Identify various parts of given project. c. Prepare report on following: i. Measure dimensions of parts and draw their sketches. ii. Use drawing template and make orthographic assembly drawings.	14
Total Hours			56

List of Books:

S. No.	Title of Books	Author	Publication
1	Machine Drawing including AutoCAD	Ajeet Singh	McGraw hill
2	Production Drawing	K L Narayan	New Age Publication
3	Fundamental of Geometric Tolerance and dimensioning	Alex Krulikowski	Cengage Learning

Industrial Visit

S.no	Company name	Date	Branch
1	Shelly Engineering	July	Mech
2	ABC Bearing	Aug	Mech
3	Indo german tool room	Aug	Mech
4	RotexEngg	Sep	Mech
5	C.J Engineering	Sep	Mech
6	Five Bros	Oct	Mech

Expert Lecture

S.no	Company Name	Guest Name	Date	Branch
1	Alstom Inida	Mr. Alay Dave	July	Mech
2	Multicut Machine Tools	Mr. Anant Patel	July	Mech
3	EME	Mr. HarendarPanday	Aug	Mech
4	Elmex	Mr. Fredrick	Aug	Mech
5	L&T	Mr. Anikate	Sept	Mech