



Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist

Department of Mechanical Engineering

DEPARTMENT OF

MECHANICAL ENGINEERING

FUELS AND LUBRICANTS LAB COURSE FILE

Branch: MECHANICAL

Class: B.Tech- I Year- II Sem

Subject: FUELS AND LUBRICANTS LAB

Code: R22MED1228

Academic Year: 2022-2023

Regulation: R22

Core/Elective/H&S: MECH

Credits: 2.5

Prepared By

Name: T GURUMURTHY

Assistant Professor.

Verified By:

Head of the Department:

Name:



Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist

Department of Mechanical Engineering

INSTITUTION VISION

To be a premier Institution in Engineering & Technology and Management with competency, values and social consciousness.

INSTITUTION MISSION

- IM₁** Provide high quality academic programs, training activities and research facilities.
- IM₂** Promote continuous Industry-Institute interaction for employability, Entrepreneurship, leadership and research aptitude among stakeholders.
- IM₃** Contribute to the economical and technological development of the region, state and nation.

PRINCIPAL



Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist

Department of Mechanical Engineering

DEPARTMENT VISION

To be a centre of excellence in Department of Mechanical Engineering Education to produce professionals for ever-growing needs of society.

DEPARTMENT MISSION

The Department has following Missions:

DM₁ To provide value added education in Mechanical and allied engineering.

DM₂ To provide conducive environment oriented towards innovation.

DM₃ To impart training on emerging technologies like CAD/CAM with involvement of stake holders.

DM₄ Inculcating ethical values ability towards lifelong learning and social responsibilities.

Head of the Department



PROGRAM OUTCOMES (POs) & PROGRAM SPECIFIC OUTCOMES (PSOs)

PO	Description
PO 1	Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO 2	Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO 3	Design / development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO 4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO 5	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO 6	The engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO 7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO 8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice
PO 9	Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO 10	Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO 11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO 12	Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological Change
Program Specific Outcomes	
PSO 1	Basic Mechanical knowledge: Apply basic knowledge related to Mechanical Design, Manufacturing, Thermal Engineering and CAD/CAM to solve various engineering/societal problems.
PSO 2	Design methods: Design, verify, Fabricate and suitable Mechanical functional elements for different applications, with skills to interpret and communicate results.
PSO 3	Experimentation and Analysis: Engineering and management concepts are used to analyze specifications and prototype Mechanical experiments/projects either independently or in groups.



Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist

Department of Mechanical Engineering

Head of the Department

Program Educational Objectives (PEOs)

Program: B. Tech – Mechanical Engineering

- PEO 1: Higher Degrees & Professional Employment:** Graduates with ability to pursue career in core industries or higher studies in reputed institution.
- PEO 2: Domain Knowledge:** Graduates with ability to apply professional knowledge/skills to design and develop product or process.
- PEO 3: Engineering Career:** Graduates with excellence in Department of Mechanical Engineering along with effective inter-personnel skills.
- PEO 4: Lifelong Learning:** Graduates equipped with skills in MECHANICAL technologies and be MECHANICAL to attain professional competence through life-long learning.

Head of the Department



BR22 – B.Tech. - Mechanical Engineering

3. Inorganic Quantitative analysis by A.I. Vogel, ELBS Publications.
4. College Practical Chemistry by V.K. Ahluwalia, Narosa Publications Ltd. New Delhi (2007).

SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY
(An Autonomous Institution under UGC, New Delhi)

B.Tech. - I Year – II Semester

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(R22MED1228) FUELS AND LUBRICANTS LABORATORY

Course Objectives: To Understand the fuel and lubricants properties.

Course Outcomes: At the end of the course, students will be able to

1. Find the kinematic viscosity of lubricants and its variation with temperature
2. Determine the flash point, fire point, cloud point and pour point of liquid fuels
3. Determine the calorific value of solid, liquid and gaseous fuels
4. Determination of the dropping point of lubricating grease
5. Determination of distillation characteristics of petroleum products

List of Experiments:

1. Determination of Flash and Fire points of Liquid fuels/Lubricants using: Abels Apparatus
2. Determination of Flash and Fire points of Liquid fuels/Lubricants using: Pensky Martens Apparatus
3. Carbon residue test: Liquid fuels.
4. Determination of Viscosity of Liquid lubricants and Fuels using: Saybolt Viscometer
5. Determination of Viscosity of Liquid lubricants and Fuels using: Redwood Viscometer
6. Determination of Viscosity of Liquid lubricants and Fuels using: Engler Viscometer
7. Determination of Calorific value: of Gaseous fuels using: Junkers Gas Calorimeter.
8. Determination of Calorific value: Solid/Liquid/fuels using: Bomb Calorimeter.
9. Drop point and Penetration Apparatus for Grease.
10. ASTM Distillation Test Apparatus.
11. Cloud and Pour Point Apparatus.



B.Tech. - I Year - II semester

SUB Name: FUELS AND LUBRICANTS LAB

SUB CODE: R22MED1228

Course out comes (COs):

At the end of the course the student will be able to:

Course Outcomes	Statements
C114.1	Study and practice on machine tools and their operations. (L4-Analyzing)
C114.2	Practice on manufacturing of components using workshop trades including plumbing, fitting, carpentry. . (L4-Analyzing)
C114.3	To understand the foundry, house wiring and welding Trades. (L4-Analyzing)
C114.4	Identify and apply suitable tools for different trades of Engineering processes including drilling, material removing, measuring, chiseling. . (L4-Analyzing)
C114.5	Apply basic electrical engineering knowledge for house wiring practice. (L4-Analyzing)

Course Articulation Matrix:

Course Outcome	PO1	PO2	PO3	PO4	PO5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO1 2	PSO 1	PSO 2	PSO 3
	PO1	PO2	PO3	PO4	PO5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO1 2	PSO 1	PSO 2	PSO 3
C114.1	2	2	1	2	1	-	-	-	-	1	1	2	2	2	-
C114.2	2	2	1	3	1	2	-	-	-	2	1	2	2	2	-
C114.3	2	2	1	2	1	-	-	-	-	-	1	2	2	2	-
C114.4	2	2	1	3	3	-	-	-	-	-	1	2	2	2	-
C114.5	2	2	1	3	2	1	-	-	-	-	1	2	2	2	-
C114	2	2	1	2.1	1.3	0.5	-	-	-	0.5	1	2	2	2	-



ACADEMIC CALENDAR 2022-2023



SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY
(An Autonomous Institution under UGC, New Delhi)
Recognized under 2(f) and 12(B) of UGC Act 1956
NBA Accredited, Approved by AICTE and Permanently affiliated to JNTUH
Sheriguda (V), Ibrahimpatnam, R.R.Dist, Hyderabad - 501 510

D4

BR-22

Lr.No.SICET/AUTO/DAE/BR-22/Academic Cal./655/2022

Date: 27.10.2022

I B.TECH. ACADEMIC CALENDAR
ACADEMIC YEAR : 2022-2023

Dr.G. SURESH,
Principal,

To,
All the HODs
Sir,

Sub: SICET (Autonomous) - Academic & Evaluation - Academic Calendar for I B.Tech - I & II Semester for the academic year 2022-23 – Reg.

The approved Academic Calendar for I B.Tech – I & II Semester for the academic year 2022-23 is given below:

I SEMESTER

S.NO.	EVENT	PERIOD	DURATION
1.	Induction & Orientation Programme	03.11.2022	
2.	1 st Spell of Instructions for covering First Two and a half Units	03.11.2022 – 28.12.2022	8 Weeks
3.	I Mid Examinations	29.12.2022 – 04.01.2023	1 Week
4.	Submission of I Mid Term Examination Marks to the Autonomous Section on or before	10.01.2023	
5.	2 nd Spell of Instructions for covering Remaining Two and a half Units	05.01.2023 – 02.03.2023	8 Weeks
6.	II Mid Examinations	03.03.2023 – 09.03.2023	1 Week
7.	Preparation & Practical Examinations and Remedial Mid Test (RMT)	10.03.2023 – 16.03.2023	1 Week
8.	Submission of II Mid Term Examination Marks to the Autonomous Section on or before	16.03.2023	
9.	I Semester End Examinations	17.03.2023 – 01.04.2023	2 Weeks
Commencement of Class-Work for I B.Tech - II Semester 03.04.2023			

II SEMESTER

S.NO.	EVENT	PERIOD	DURATION
1.	Commencement of II Sem Class Work	03.04.2023	
2.	1st Spell of Instructions for covering First Two and a half Units (Including Summer Vacation)	03.04.2023 – 10.06.2023	10 Weeks
	Summer Vacation	15.05.2023 – 27.05.2023	2 Weeks
3.	I Mid Examinations	12.06.2023 – 17.06.2023	1 Week
4.	Submission of I Mid Term Examination Marks to the Autonomous Section on or before	23.06.2023	
5.	2nd Spell of Instructions for covering Remaining Two and a half Units	19.06.2023 – 12.08.2023	8 Weeks
6.	II Mid Examinations	14.08.2023 – 19.08.2023	1 Week
7.	Preparation & Practical Examinations and Remedial Mid Test (RMT)	21.08.2023 – 26.08.2023	1 Week
8.	Submission of II Mid Term Examination Marks to the Autonomous Section on or before	26.08.2023	
9.	II Semester End Examinations	28.08.2023 – 09.09.2023	2 Weeks
Commencement of Class Work for II B.Tech – I Semester - 11.09.2023			

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PRINCIPAL

Copy to all the Heads of the Depts. and AO.

CONTROLLER OF EXAMINATIONS

Sri Indu College of Engineering & Technology
(An Autonomous Institution under JNTUH)
Sheriguda (V), Ibrahimpatnam, R.R. Dist-501510.

DIRECTOR

(Academic Audit)

Sri Indu College of Engineering & Technology
(An Autonomous Institution under JNTUH)
Sheriguda, IBP, R.R. Dist-501510.

PRINCIPAL

Sri Indu College of Engineering & Technology
(An Autonomous Institution Under JNTUH)
Sheriguda (V), Ibrahimpatnam, R.R. Dist-501510.



Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist

Department of Mechanical Engineering

Academic year: 2022-2023

SUB NAME:FUELS AND LUBRICANTS LAB

SUB CODE: R22MED1228

TIME TABLE

Course: B.Tech. - I Year – II Semester

Branch/Section:

MECHANICAL

Time/D ay	9:40am- 10:30am I	10:30- 11:20am II	11:20- 12:10pm III	L U N C H	12:40- 01:45pm IV	1:45- 2:50pm V	2:50- 4:00pm VI	
MON								
TUE						← FUELSAND LUBRICANTS LAB →		
WED								
THU								
FRI								
SAT								



Academic year: 2022-2023

Course: B.Tech. - I Year – II Semester (MECHANICAL)

SUB Name: FUELS AND LUBRICANTS LAB

SUB CODE: R22MED1228

Lab External Exam Questions:

Exp No	Questions	CO	BT LEVEL
1	Determination of flash and fire points of liquid fuels lubricants using Abels Apparatus	CO1	L 5
2	Determination of flash and fire points of liquid fuels lubricants using pensky martens apparatus	CO1	L5
3	Determination of carbon residue of liquid fuels	CO2	L4
4	Determination of viscosity of liquid lubricants and fuels using saybolt Viscometer	CO2	L3
5	Determination of Viscosity of liquid lubricants and fuels using Redwood Viscometer	CO2	L4
6	Determination of Viscosity of liquid lubricants and Fuels using Engler Viscometer	CO2/	L3
7	Determination of Calorific value of Gaseous fuels using Junkers Gas Calorimeter	CO2	L5
8	Determination of Calorific value of Solid Liquid fuels using Bomb calorimeter	CO2	L5
9	Determination of Drop point and penetration test for grease	CO4	L4
10	Determination of ASTM distillation test	CO3	L5

Faculty in-charge



Course: B.Tech. - I Year – II Semester (MECHANICAL)

SUB Name: FUELS AND LUBRICANTS LAB

SUB CODE: R22MED1228

LIST OF EXPERIMENTS CYCLE WISE CHART

S.No	No. of Cycle	Name of the Experiment
1.	I	Determination of flash and fire points of liquid fuels lubricants using Abels Apparatus
2		Determination of flash and fire points of liquid fuels lubricants using pensky martens apparatus
3		Determination of carbon residue of liquid fuels
4	II	Determination of viscosity of liquid lubricants and fuels using saybolt Viscometer
5		Determination of Viscosity of liquid lubricants and fuels using Redwood Viscometer I
6		Determination of Viscosity of liquid lubricants and Fuels using Engler Viscometer
7	III	Determination of Calorific value of Gaseous fuels using Junkers Gas Calorimeter
8		Determination of Calorific value of Solid Liquid fuels using Bomb calorimeter
9	IV	Determination of Drop point and penetration test for grease



Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist

Department of Mechanical Engineering

10		Determination of ASTM distillation test
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Course: B.Tech. - I Year – II Semester (MECHANICAL)

SUB Name: FUELS AND LUBRICANTS LAB

SUB CODE: R22MED1228

Lab Experiments setup Cycle chart

Week Batch	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8	week-9	week-10	week-11	week-12
Batch-1	Ex-1	Ex-2	Ex-3	Ex-4	Ex-5	Ex-6	Ex-7	Ex-8	Ex-9	Ex-10	Ex-11	Ex-12
Batch-2	Ex-12	Ex-1	Ex-2	Ex-3	Ex-4	Ex-5	Ex-6	Ex-7	Ex-8	Ex-9	Ex-10	Ex-11

Faculty in charge



Course: B.Tech. - I Year – II Semester (MECHANICAL)

SUB Name: FUELS AND LUBRICANTS LAB

SUB CODE: R22MED1228

Students Batches for Lab Experiments setup Cycle chart

MECHANICAL			
BATCHES	HT No.	Name of the Candidate	REMARKS
Batch-1	22D41A0301	AREDLA M L NARSIMHA REDDY	
	22D41A0302	AREDLA YASHWANTH REDDY	
	22D41A0303	G GOUTHAM	
Batch-2	22D41A0304	GOLYALA VIGNESHWAR DAS	
	22D41A0305	KATROTH LOKESH	
	22D41A0306	MEEGADA UMA NAGA RAJU	

Academic Year: 2020-21 I Semester

Course: B.Tech. - I Year – II Semester (MECHANICAL)

SUB Name: FUELS AND LUBRICANTS LAB

SUB CODE: R22MED1228

F&L LAB Occupancy TIME TABLE-Lab

TIME/ DAY	9:40am to 10:30am	10:30 am to 11:20am	11:20am to 12:10pm	12:10pm to 12:40pm	12:40pm to 1:30pm	1:30pm to 2:20pm	2:20pm to 3:10pm	3:10pm to 4:00pm
MON				L U N C H				
TUE								
WED								
THUR								
FRI								
SAT								
A Section	Faculty Incharge:		T GURUMURTHY					
	Lab assistant:		Chinna					



Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist

Department of Mechanical Engineering

Lab In charge

Course: B.Tech. - I Year – II Semester (MECHANICAL)

SUB Name: FUELS AND LUBRICANTS LAB

SUB CODE: R22MED1228

FUELS AND LUBRICANTS LAB (R22MED1228)- MID MARKS						
S.No	Roll Number					
	Max Marks					
		1	2	Ave	LP	T
1	22D41A0301					
2	22D41A0302					
3	22D41A0303					
4	22D41A0304					
5	22D41A0305					
6	22D41A0306					



Course: B.Tech. - I Year – II Semester (MECHANICAL)

SUB Name: FUELS AND LUBRICANTS LAB

SUB CODE: R22MED1228

List of Major Equipment

S. No.	Name of the Equipments	Quantity	RATE
1	PENSKE MARTENS FLASH & FIRE POINT APPARATUS WITH ENERGY REGULAR & TWO THERMOMETRES OPEN CUM ATTACHMENT	1	6785
		1	1990
2	ABELS FLASH POINT APPARATUS WITH ENERGY REGULAR AND TWO THERMOMETERS	1	6210
3	CONRADS ON CARBON RESIDUE APPARATUS	1	3395
4	REDWOOD VISCOMETER-I WITH ENERGY REGULATOR 50 CC FLASK & TWO THERMOMETERS	1	6295
5	REDWOOD VISCOMETER-II WITH ENERGY 60 CC FLASK & TWO THERMOMETERS	1	7935
6.	SAYBOLT VISCOMETER WITH ENERGY REGULATOR, OIL STRAINER, WITHDRAWAL TUBE, 60 CC FLASK & THERMOMETERS	1	6670
7.	JUNKERS GAS CALORIMETER	1	39500
8.	GREASE CONE PENETROMETER	1	6670
9.	BOMB CALORIMETER	1	39975
10.	ENGLER VISCOMETER	1	12000
11.	DISTILLATION UNIT	1	6528
	TOTAL (LESS 30% DISCOUNT)		143953/- 43185.9/-
	NET AMOUNT PAID		100767.1/-



Course: B.Tech. - I Year – II Semester (MECHANICAL)

SUB Name: FUELS AND LUBRICANTS LAB

SUB CODE: R22MED1228

List of Equipments for the Engineering workshop Laboratory As on 1st JULY 2019

	Name	Make	Date	Quantity	Installed
1	PENSKY MARTENS FLASH AND FIRE POINT APPARATUS	SEECO	13/10/2004	1	16/10/2004
2	ABELS FLASH AND FIRE POINT APPARATUS	SEECO	13/10/2004	1	16/10/2004
3	CONARDSON CARBON RESIDUE APPARATUS	SEECO	13/10/2004	1	16/10/2004
4	REDWOOD VISCOMETER I & II	SEECO	13/10/2004	2	16/10/2004
5	SAYBOLT VISCOMETER	SEECO	13/10/2004	1	16/10/2004
6	JUNKERS GAS CALORIMETER	SEECO	13/10/2004	1	16/10/2004
7	GREASE CONE PENETROMETER	SEECO	13/10/2004	1	16/10/2004
8	BOMB CALORIMETER	SEECO	13/10/2004	1	16/10/2004
9	ENGLER VISCOMETER	SEECO	13/10/2004	1	16/10/2004
10	DISTILLATION UNIT	MH ENTERPRISES	25/5/2012	1	6/6/2012



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Department of Mechanical Engineering

Course: B.Tech. - I Year – II Semester (MECHANICAL)

SUB Name: FUELS AND LUBRICANTS LAB

SUB CODE: R22MED1228

List of Labeling /Number Code of the equipment:

SICET/MED/F&L/ABELS APPARATUS
SICET/MED/F&L/PENSKY MARTENS APPARATUS
SICET/MED/F&L/CARBON RESIDUE TEST
SICET/MED/F&L/ENGLER VISCOMETER
SICET/MED/ F&L /SAYBOLT VISCOMETER
SICET/MED/F&L/REDWOOD VISCOMETER-1
SICET/MED/F&L/JUNKERS GAS CALORIMETER
SICET/MED/F&L/BOMB CALORIMETER
SICET/MED/F&L/DROP POINT PENETRATION APPARATUS
SICET/MED/F&L/ASTM DISTILLATION TEST APPARATUS
SICET/MED/F&L/REDWOOD VISCOMETER-2

Lab In charge



Course: B.Tech. - I Year – II Semester (MECHANICAL)

SUB Name: FUELS AND LUBRICANTS LAB

SUB CODE: R22MED1228

FUELS AND LUBRICANTS LAB

DO's

1. Conduct in a responsible manner at all times in the laboratory.
2. Keep the work area clean, neat and free of any unnecessary objects.
3. Read the description, procedure and precautions of the experiment in the lab manual.
4. Place all sensitive electronic equipment safely on experimental table.
5. Before using the equipment one must read the labels and instructions carefully.
6. Set up and use the equipment as directed by the lab instructor.
7. Circuit connections are to be done only in power off mode.
8. Check out the circuit connections before switching on the power.
9. Increase the power readings from minimum to maximum.
10. All procedures and experimental data should be recorded in the lab observation notebook.
11. Switch off the power in the circuit after completion of the experiment.
12. Any failure / break-down of equipment must be reported to the instructor.
13. Return the material properly after completing the experiment.
14. Replace the materials in proper place after work.
15. Be careful when handling optical items like prisms, gratings etc.

DON'Ts

1. Do not wear loose clothing and do not hold any conducting materials in contact with skin when the power is on.
2. Do not touch any equipment or other materials in the laboratory area until instructed by instructor.
3. Do not modify or damage the laboratory equipment in any way unless the modification is directed by the instructor.
4. Do not handle electrical equipment and connections with wet hands.
5. Do not try to connect power in to the circuit without proper understanding of the circuit diagram.
6. Do not look directly into laser source.
7. Do not short any battery box or power supply, it may damage retina in your eye.
8. Never switch on the power button of the circuit until it has been approved by instructor.

Lab In charge



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Department of Mechanical Engineering

Course: B.Tech. - I Year – IISemester (MECHANICAL)

SUB Name: FUELS AND LUBRICANTS LAB

SUB CODE: R22MED1228

FUELS AND LUBRICANTS LAB

INVENTORY LIST:

S.No	Name of the inventory item	Quantity
1	College vision and mission board	1
2	Department vision and mission board	1
3	List of equipment's board	1
5	Types of electrical switches board	7
6	Tube lights	3
7	Fans	2
8	Safety guide line board	1
9	Program educational outcomes board	1
10	Program outcomes board	1
11	Notice board	1



Lab In charge

Course: B.Tech. - I Year – II Semester (MECHANICAL)

SUB Name: FUELS AND LUBRICANTS LAB

SUB CODE: R22MED1228

FUELS AND LUBRICANTS LAB

CONSUMABLES PURCHASED FOR FUELS AND LUBRICANTS LAB

SNO	PARTICULARS	PURCHASED FROM	QTY	RATE	AMOUNT
1	2kg Gas	Raghavendra electrical	2 kg	320	320
2	Oxygen-acetylene Gas	Rasheed Oxygen Centre	1	350×1	350
3	Grease				350
4	Oil				350
5	Petrol		0.91 Ltrs		100
6	Petrol				220
7	CPVC Solvent	Mahalaxmi Electricals	1	230×1	230
8	M seal	Bhavani Electricals	5		175
9	$\frac{3}{4}$ Pipe	Mahalaxmi electricals	2	280×2	560
10	$\frac{3}{4}$ Coupling	Mahalaxmi electrical	2	20×2	40



Department of Mechanical Engineering

11	$\frac{3}{4}$ Elbow	Mahalaxmi electrical	10	20×10	200
12	$\frac{3}{4}$ × $\frac{1}{2}$ B FTA	Mahalaxmi Electricals	2	95×2	190
13	$\frac{3}{4}$ × $\frac{1}{2}$ B MTA	Mahalaxmi Electricals	3		480
14	$\frac{1}{2}$ GIT	Mahalaxmi Electricals	1	35×1	35
15	$\frac{1}{2}$ ×2 Nippal	Mahalaxmi Electricals	1	20×1	20
16	$\frac{3}{4}$ Union	Mahalaxmi Electricals	1	80×1	80
17	$\frac{1}{2}$ Ball valve	Mahalaxmi Electricals	1	295×1	295
18	Tap	Mahalaxmi Electricals	1	395×1	395
19	Heater Coil	United Traders	2	850×2	1700
20	Rubber cork	Scientific World	2	9×2	18
21	Rubber Cork	Scientific World			48
22	3-Pin Plug	Bhavani Electricals	5		150



Department of Mechanical Engineering

sl.NO	EQUIP. NAME	UNIQ ID	TOTAL UNITS AVAILABLE
1	PENSKE MARTENS FLASH & FIRE POINT	SICET/MED/F&L/PENSKY MARTENS APPARATUS	
2	ABELS APPARATUS	SICET/MED/F&L/ABELS APPARATUS	
3	CARBON RESIDUE TEST	SICET/MED/F&L/CARBON RESIDUE TEST	
4	SAYBOLT VISCOMETER	SICET/MED/ F&L /SAYBOLT VISCOMETER	
5	REDWOOD VISCOMETER-1	SICET/MED/F&L/REDWOOD VISCOMETER-1	
6	ENGLER VISCOMETER	SICET/MED/F&L/ENGLER VISCOMETER	
7	JUNKERS GAS CALORIMETER	SICET/MED/F&L/JUNKERS GAS CALORIMETER	
8	BOMB CALORIMETER	SICET/MED/F&L/BOMB CALORIMETER	
9	DROP POINT PENETRATION APPARATUS	SICET/MED/F&L/DROP POINT PENETRATION APPARATUS	
10	ASTM DISTILLATION TEST APPARATUS	SICET/MED/F&L/ASTM DISTILLATION TEST APPARATUS	
11	REDWOOD VISCOMETER-2	SICET/MED/F&L/REDWOOD VISCOMETER-2	