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

Department of Civil Engineering

DEPARTMENT OF

MECHANICAL ENGINEERING

ENGINEERING WORKSHOP COURSE FILE

Branch: CIVIL **Class: B.Tech- I Year-I Sem**

Subject: ENGINNERING WORKSHOP LAB **Code: R22MED1124**

Academic Year: 2022-2023 **Regulation: R22**

Core/Elective/H&S: MECH **Credits: 2.5**

Prepared By

Name: B.SANTHOSH KUMAR

Assistant Professor.

Verified By:

Head of the Department:

Name:

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

Department of Civil Engineering

Lab Course File - Check List

LAB FILE:

S.NO.	NAME OF THE FILE	Y/N
1	V.M,PEO - HoD signed Xerox Copy	Y
2	PO,PSOs - HoD signed Xerox Copy	Y
3	PO,PSOs, COs and Mapping - prepared and signed by faculty in charge	Y
4	List of Experiments as per the syllabus - University Xerox copy	Y
5	List of Experiments including additional experiments and	Y
6	their CO, PO/PSOs mapping - prepared and signed by faculty in charge	Y
7	Class time table highlighting the lab - HoD signed Xerox copy	Y
8	Model practical End exam questions - prepared and signed by faculty in charge	Y
9	Schedule of end practical examinations - HoD signed Xerox copy	Y
10	List of examiners - HoD signed Xerox copy	Y
11	Cycle chart to known the batch size of experiments setup –	Y
12	prepared and signed by faculty in charge	Y
13	Lab occupancy chart (including names of Lab, faculty in charges and support staff)	Y
14	- prepared and signed by Lab in charge	Y
15	List of Major equipment - prepared and signed by Lab in charge	Y
16	List of the equipment(S.No., Description, suppliers, Date of purchase, Unit price,	Y
17	quantity, total) - prepared and signed by lab in charge	Y
18	List of Labeling/Number code of the equipment –	Y
19	prepared and signed by faculty in charge	Y

REGISTER/DOCUMENTS

S.NO.	NAME OF THE REGISTER/DOCUMENTS	Y/N
1	Stock Register (which includes date of purchase, supplier, Indent, GRN, bill number)	Y
2	-prepared and signed by Lab in charge	Y
3	Maintenance register(allocate minimum one page for each equipment)	Y
4	- prepared and signed by Lab in charge	Y
5	Consumables register(allocate minimum one page for each equipment)	Y
6	- prepared and signed by Lab in charge	Y
7	Student Log-in Register -prepared and signed by Lab in charge	Y
8	Service/Repair register - prepared and signed by Lab in charge	Y
9	Equipment operation manual provided by the manufacturer	Y
10	File of filled indents forms/Register - prepared and signed by faculty in charge	Y

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

Department of Civil Engineering

INSTITUTION VISION

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

INSTITUTION MISSION

IM_1 Provide high quality academic programs, training activities and research facilities.

IM_2 Promote continuous Industry-Institute interaction for employability, Entrepreneurship, leadership and research aptitude among stakeholders.

IM_3 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 Civil Engineering

DEPARTMENT VISION

To be a Center of Excellence in the field of Civil Engineering with Professional and ethical Responsibilities

DEPARTMENT MISSION

The Department has following Missions:

DM_1 To provide value added education in civil engineering

DM_2 To provide conductive environment oriented towards innovation

DM_3 To provide conductive environment oriented towards innovation

DM_4 Inculcating ethical values ability towards lifelong learning and social responsibilities.

Head of the Department

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

Department of Civil Engineering

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	**BasicCivilEngineeringKnowledge:**ApplybasicknowledgerelatedtoCivilEngineeringdesign Structural,Roadsand Buildings,dams andStaad Pro tosolvevariousengineering problems.
PSO 2	**Design Methods:** Design, Verify and Fabricate suitable civil functional elements for steel and concrete structures, roads,buildings,Dams and Bridges and High Raised Buildings, SkyWays and HighWays.
PSO 3	**ExperimentationandAnalysis:** Analyse,PlanandPrototypecivilexperiments/Projects.

Head of the Department

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

Department of Civil Engineering

Program Educational Objectives (PEOs)

Program:B. Tech –Civil Engineering

PEO 1: **Higher Degrees & Professional Employment:** Graduateswith ability to pursue career in core industries or higher studies in reputed institution.

PEO 2: **Domain Knowledge:**Graduates with ability to applyprofessional knowledge/skills to design and develop product or process.

PEO 3: **Engineering Career:**Graduates with excellence in civil Engineering along with effective inter-personnelskills.

PEO 4: **Lifelong Learning:**Graduates equipped with skills in recent technologies and be receptive to attain professional competence through life-long learning.

Head of the Department

SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

B.Tech. - I Year – I Semester

L	T	P	C
0	1	3	2.5

(R22MED1124)ENGINEERINGWORKSHOP

CourseObjectives:

- ToStudyofdifferenthandoperatedpowertools, usesandtheirdemonstration.
- Togainagoodbasicworkingknowledgerequiredfortheproductionofvariousengineeringproducts.
- Toprovidehandsonexperienceaboutuseofdifferentengineeringmaterials,tools,equipmentsand processesthose are commonin the engineeringfield.
- Todeveloparight attitude,teamworking, precisionandsafetyat workplace.
- It explains the construction, function, use and application of different working tools, equipmentandmachines.
- Tostudycommonlyusedcarpentryjoints.
- Tohavepracticalexposuretovariousweldingandjoiningprocesses.
- Identifyandusemarkingouttools,handtools,measuringequipmentandtoworktoprescribedtolerances.

CourseOutcomes: Attheendof thecourse, thestudent willbeableto:

1. Studyand practiceonmachinetoolsandtheiroperations
2. Practiceonmanufacturingofcomponentsusingworkshoptradesincludingpluming,fitting,carpentry.
3. To understand the foundry,housewiring and welding Trades.
4. IdentifyandapplysuitabletoolsfordifferenttradesofEngineeringprocessesincludingdrilling,materia l removing,measuring,chiseling.
5. Applybasicelectricalengineeringknowledgeforhousewiringpractice.

Syllabus :

- Introduction to Carpentry : Types Wood, Sizes of Wood or Timber, Characteristics of Wood, Types of Marking and Measuring Tools, Holding Tools, Cutting Tools, Planing Tools, Types of Chisels and their specifications, Drilling and Boring Tools and their Sketches, Wood Working Lathe and its parts, Drilling Machine and its parts, Types of saws, Sawing Machines such as Jigsaw, Bandsaw, Scrollsaw etc., Care and Maintenance of Tools.
- Introduction to Fitting : Holding Tools, Marking and Measuring Tools, Cutting Tools, Taps and Tap Wrenches, Dies and Die Holders, Bench Drilling Machine with Sketch and Specifications, Types of Files, File Card, Types of Hammers, Spanners, Screwdrivers, Fitting operations, Forms of Materials, Care and Maintenance of Tools
- Introduction of Tin-Smithy : Sheet Materials, Hand Tools, Hammers, Stakes, Sheet Metal Joints, Revets and Screws, Soldering and Brazing.
- Introduction to Foundry : Casting and its components such as Molding sands and their types, Properties, Types patterns, Pattern making materials, Tools used for the Molding, Melting Furnaces such as Cupola, Pot Furnace, Crucible Furnace
- Introduction to Welding : Various Welding processes such as Arc Welding, Gas Welding, Resistance Welding, Thermit Welding, Friction Welding, Elementary Symbols of the Welding, Transformers, Motor Generators, Rectifyers, Welding cables, Electrodes and their types, Electrode Holders, Techniques of Welding, Gas Welding their Types
- Introduction to House-wiring : Types of the Tools using House-wiring, Types of Housewiring System, Fuses, Circuit Breakers, Switches, Sockets and Common House-wiring Methods, Various Symbol for Electrical Items.
- Introduction to Black Smithy : Tools and equipment used in the Black Smithy, Forging Temperatures of metals.
- Introduction to the Plumbing, Machine Shop, Metal Cutting, Power Tools.

BR22 – B.TECH. - CIVIL ENGINEERING

1. TRADESFOREXERCISES:

Atleast twoexercisesfromeachtrade:

I. Carpentry–(T-LapJoint,DovetailJoint, Mortise&TenonJoint)
II. Fitting–(V-Fit,DovetailFit&Semi-circularfit)
III. Tin-Smithy–(Square Tin,RectangularTray&ConicalFunnel)
IV. Foundry–(PreparationofGreenSandMouldusingSinglePieceandSplitPattern)
V. Welding Practice–(ArcWelding&GasWelding)
VI. House-wiring–(Parallel&Series, Two-waySwitchandTubeLight)
VII. BlackSmithy–(Round toSquare,FanHookandS-Hook)

2. TRADESFORDEMONSTRATION&EXPOSURE:

Plumbing,MachineShop,MetalCutting(WaterPlasma),PowertoolsinconstructionandWoodWorking

TEXTBOOKS:

1. WorkshopPractice/B.L.Juneja/Cengage
2. WorkshopManual/K.Venugopal/Anuradha.

REFERENCEBOOKS:

1. WorkshopManual-P.Kannaiah/K.L.Narayana/Scitech
2. WorkshopManual/VenkatReddy/BSP

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

Department of Civil Engineering

B.Tech. - I Year - I semseter
SUB Name: ENGINEERING WORKSHOP
SUB CODE: R22MED1124

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 pluming, 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**	**-**

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

Department of Civil Engineering

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.	1St 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.	2nd 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 Remidial Mid Test (RMT)	10.03.2023 – 16.03.2023	1 Week
8.	Submission of II Mid Term Examination Marks 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 Remidial Mid Test (RMT)	21.08.2023 – 26.08.2023	1 Week
8.	Submission of II Mid Term Examination Marks 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			

ACE CE DEAN 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
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 Civil Engineering

Academic year: 2022-2023

SUB NAME:ENGINEERING WORKSHOP
SUB CODE: R22MED1124

TIME TABLE

Course: B.Tech. - I Year – I Semester **Branch/Section: CIVIL**

Time/Day	9:40am-10:30am I	10:30-11:20am II	11:20-12:10pm III		12:40-01:45pm IV	1:45-2:50pm V	2:50-4:00pm VI
MON	AP	M&C	CP&DS	LUNCH	← CP&DS LAB →		
TUE	← AP LAB →				AP	CP&DS	EWS
WED	ESE	M&C	M&C		ESE	AP	CP&DS
THU	M&C	CP&DS	AP		← EWS →		
FRI	AP	← Elements of ECE →			M&C	CP&DS	ESE
SAT	ESE	COUNS	LIB		← ELCS LAB →		

TIME	09:40am To 10:30am	10:30am To 11:20pm	11:20am To 12:10pm		12:40pm To 1:45pm	1:45pm To 2:50pm	2:50pm To 4:00pm
DAY	1	2	3		4	5	6
MON				LUNCH			
TUE	← CE & ECE-B →				← AI&DS-B →		
WED	← AI&DS-A →				← AI&ML-A →		
THU					← ME & ECE-A →		
FRI	← IOT →						
SAT	← AI&ML-B →						

Faculty signature

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

Department of Civil Engineering

Academic year: 2022-2023

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

SUB Name: ENGINNERING WORKSHOP
SUB CODE: R22MED1124
Lab External Exam Questions:

Exp No		Questions	CO	BT LEVEL
Sl.no	**Exp No**	**Questions**	**CO**	**BT LEVEL**
1	1	To To make a T- lap joint from the given two reapers	CO1	VI
2	2	To To make a Dove Tail- lap joint from the given two reapers	CO1	VI
3	3	To To make a v-fitting from the given two ms pieces	CO2	VI
4	4	To To make a Half round fitting from the given two ms pieces	CO2	VI
5	5	To To prepare T- joint by using arc welding	CO3	VI
6	6	To To prepare Corner joint by using arc welding	CO3	VI
7	7 a	To To give connection to two lights controlled by one switch in series	CO5	III
8	7 b	To To give connection to one light controlled by two –way switches	CO5	III
9	8	To To make Rectangular Tray using the given sheet metal	CO2	VI
10	9	To To make Square Tin using the given sheet metal	CO2	VI
11	10 a	To To make a Square Rod from a given round rod ,by following hand forging operations	CO4	III
12	10 b	To To prepare Single piece pattern by using the green sand mould	CO4	III
13	11	To To make a S-Hook from a given round rod ,by following hand forging operations	CO3	VI
14	12	To To make a Square Rod from a given round rod ,by following hand forging operations	CO3	VI

Faculty in-charg

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

Department of Civil Engineering

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

SUB Name: ENGINNERING WORKSHOP
SUB CODE: R22MED1124

LIST OF EXPERIMENTS CYCLE WISE CHART

S.No	No. of Cycle	Name of the Experiment
1.	I	To make a T- lapjoint from the given two reapers
2		To make a Dove Tail- lapjoint from the given two reapers
3		To make a v-fitting from the given two ms pieces
4	II	To make a Half round fitting from the given two ms pieces
5		To make Rectangular Tray using the given sheet metal
6		To make Square Tin Tray using the given sheet metal
7	III	a) To give connection to two lights controlled by one switch in series b) To give connection to one light controlled by two –way switches
8		To make a S-Hook from a given round rod ,by following hand forging operations
9		To make a Square Rod from a given round rod ,by following hand forging operations
10	IV	a) To prepare Single piece pattern by using the green sand mould b) To prepare Split piece pattern by using the green sand mould
11		To prepare T- joint by using arc welding
12		To prepare Corner joint by using arc welding

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

Department of Civil Engineering

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

SUB Name: ENIGERRING WORKSHOP
SUB CODE: R22MED1124

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

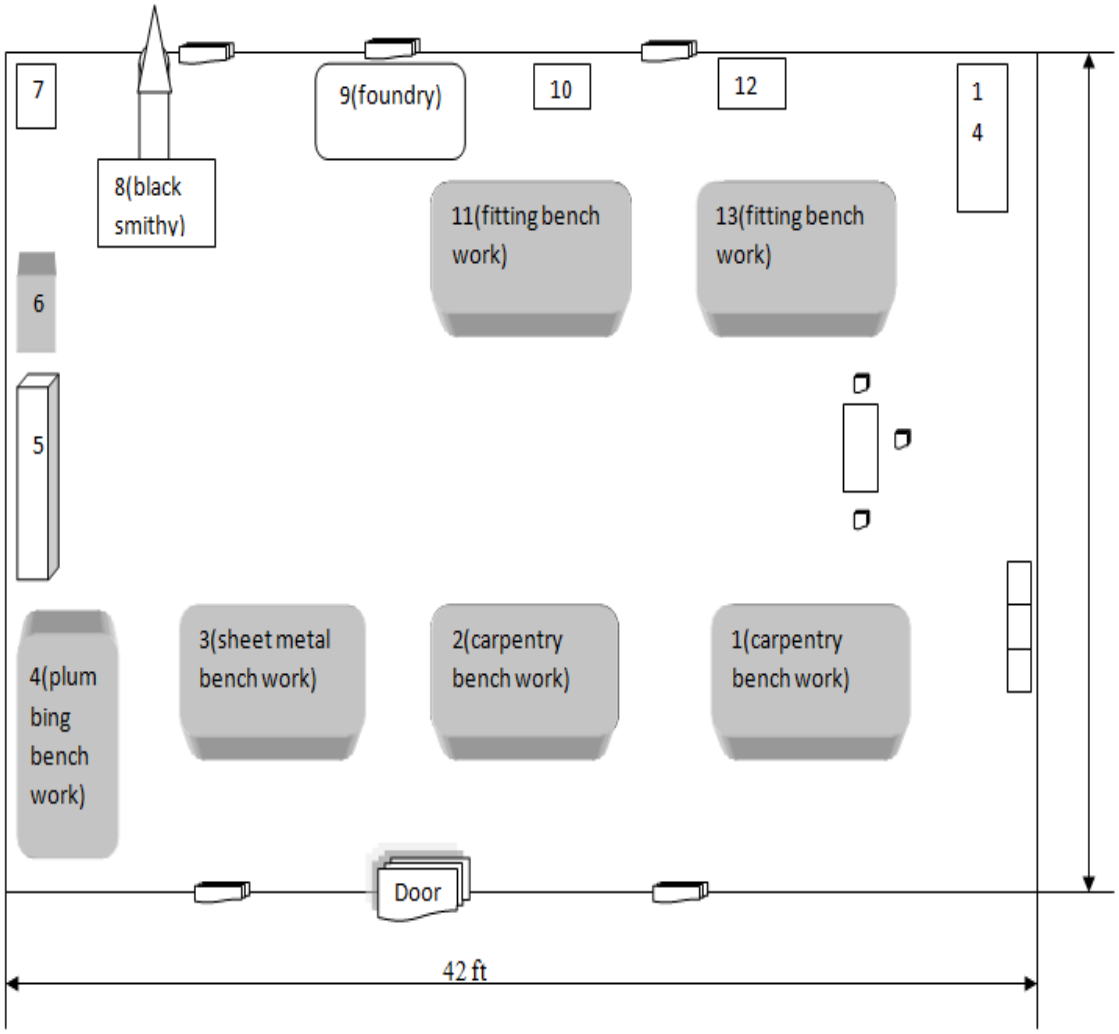
Faculty in charge

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

Department of Civil Engineering

ENGINEERING WORKSHOP LAB -I

Room no : GF-116

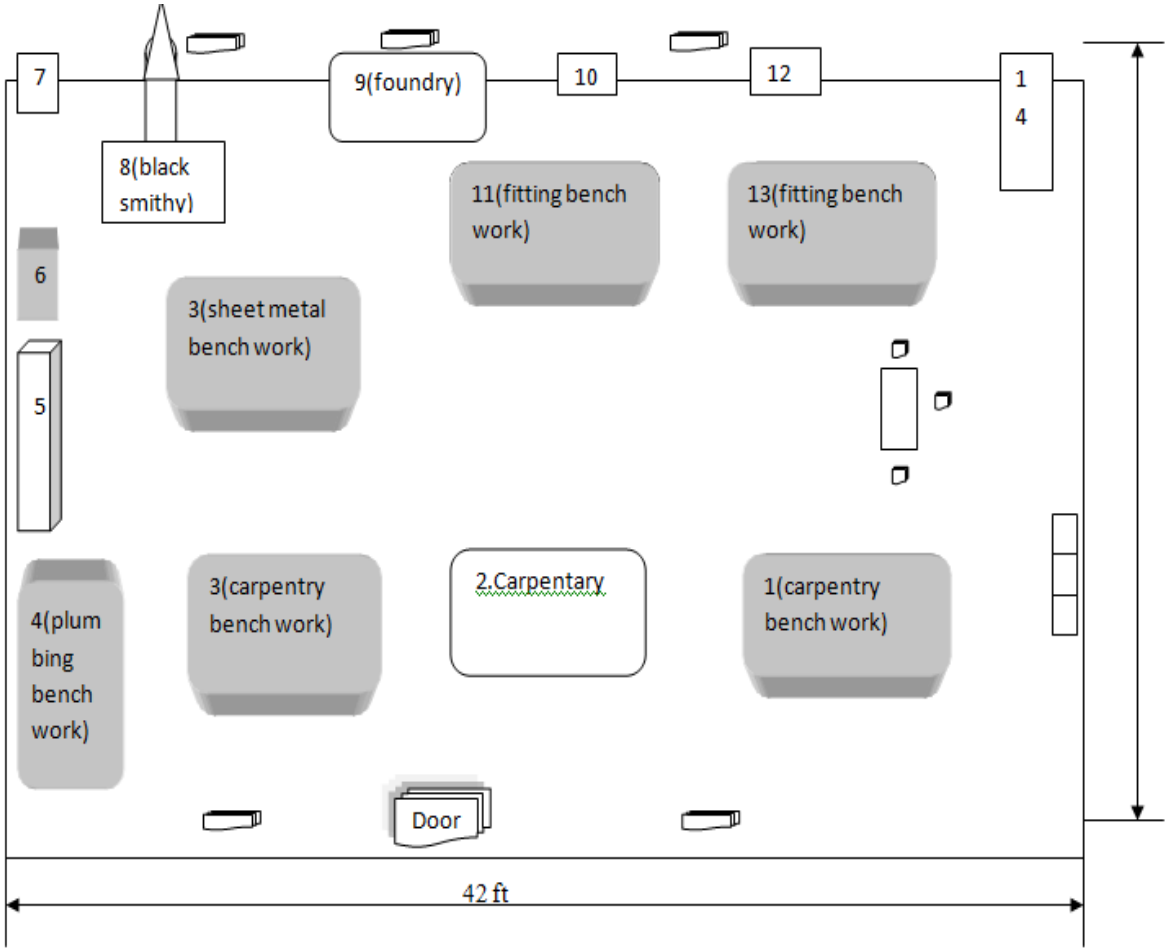


Sri Indu College of Engineering & Technology: Sheriguda (V), R.R.Dist

Department of Civil Engineering

ENGINEERING WORKSHOP LAB -II

Room no: GF-114

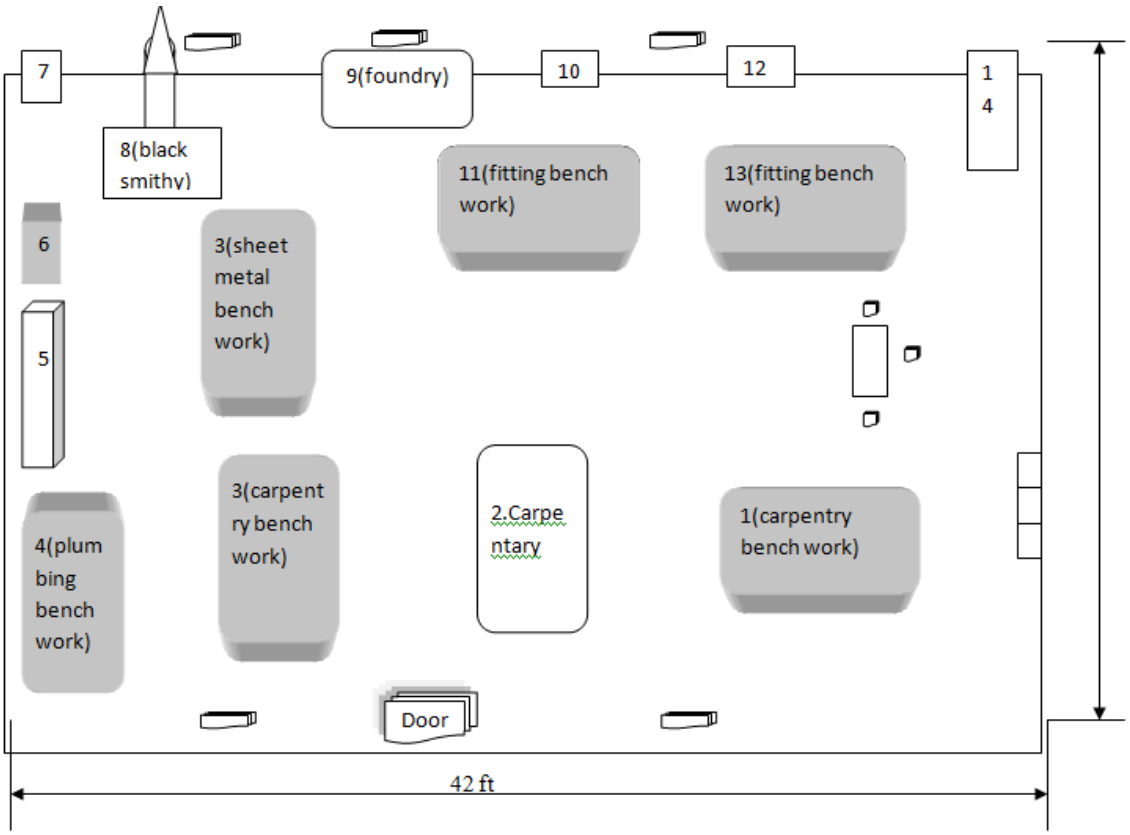


Sri Indu College of Engineering & Technology: Sheriguda (V), R.R.Dist

Department of Civil Engineering

ENGINEERING WORKSHOP LAB -III

Room no: GF-105



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

Department of Civil Engineering

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

SUB Name: ENGINEERING WORKSHOP
SUB CODE: R22MED1124

Students Batches for Lab Experiments setup Cycle chart

CIVIL Section-Batch			
BATCHES	**HT No.**	**Name of the Candidate**	**REMARKS**
Batch-1	22D41A0101	AVULA SUNNY	
	22D41A0102	ESLAVATH THARUN	
	22D41A0103	KAMEPALLI SUDHARANI	
Batch-2	22D41A0104	MUPPALA CHANDANA	
	22D41A0105	N RAMU	
	22D41A0106	NENAVATH GOUTHAM NAIK	
Batch-3	22D41A0107	NENAVATH SAI KIRAN	
	22D41A0108	NUNAVATH NAVEEN	
	22D41A0109	PIDAMARTHY TRIVENI	
Batch-4	22D41A0110	RAMAVATH SANJEEVA	
	22D41A0111	VINOD MUDAVATH	

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

Department of Civil Engineering

Academic Year: 2020-21 I Semester

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

SUB Name: ENGINNERING WORKSHOP
SUB CODE: R22MED1124

EWS LAB Occupancy TIME TABLE-Lab-1

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						CIVIL		
FRI								
SAT								

LAB OCCUPANCY		Ews Lab in charge: B.santhosh kumar
		Lab-1(GF-105)
A Section	Faculty Incharge:	B.Santhosh kumar
	Lab assistant:	Naresh
B Section	Faculty Incharge:	B.santhosh kumar
	Lab assistant:	Naresh

Lab In charge

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

Department of Civil Engineering

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

SUB Name: ENGINEERING WORKSHOP

SUB CODE: R22MED1124

EWS lab Occupancy TIME TABLE-Lab-2
Room No : GF-114

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				LUNCH				
TUE								
WED								
THUR						CIVIL		
FRI								
SAT								

LAB OCCUPANCY		EWS Lab in charge: D.Dharma
		Lab-2 (GF-114)
A Section	Faculty In charge:	D.Dharma
	Lab assistant:	parmesh
B Section	Faculty In charge:	D.Dharma
	Lab assistant:	parmesh

Lab In charge

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

Department of Civil Engineering

ENGINEERING WORKSHOP LAB(R22MED1124)- MID MARKS						
S.No	**Roll Number**					
	Max Marks					
		1	**2**	**Ave**	**L P**	**T**
1	**22D41A0101**	**20**	**10**	**15**	**10**	**25**
2	**22D41A0102**	**22**	**23**	**23**	**10**	**33**
3	**22D41A0103**	**26**	**26**	**26**	**10**	**36**
4	**22D41A0104**	**25**	**22**	**24**	**10**	**34**
5	**22D41A0105**	**20**	**22**	**21**	**10**	**31**
6	**22D41A0106**	**21**	**26**	**24**	**10**	**34**
7	**22D41A0107**	**26**	**27**	**27**	**10**	**37**
8	**22D41A0108**	**24**	**26**	**25**	**10**	**35**
9	**22D41A0109**	**25**	**26**	**26**	**10**	**36**
10	**22D41A0110**	**24**	**24**	**24**	**10**	**34**
11	**22D41A0111**	**22**	**23**	**23**	**10**	**33**

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

Department of Civil Engineering

(R22MED1124) ENGINNERING WORKSHOP LAB
(Common to CE,MECH,ECE,AI&DS,AIML,IOT)

Sl.no	Exp No	Questions	CO	BT LEVEL
1	1	To To make a T- lap joint from the given two reapers	CO1	VI
2	2	To To make a Dove Tail- lap joint from the given two reapers	CO1	VI
3	3	To To make a v-fitting from the given two ms pieces	CO2	VI
4	4	To To make a Half round fitting from the given two ms pieces	CO2	VI
5	5	To To prepare T- joint by using arc welding	CO3	VI
6	6	To To prepare Corner joint by using arc welding	CO3	VI
7	7 a	To To give connection to two lights controlled by one switch in series	CO5	III
8	7 b	To To give connection to one light controlled by two –way switches	CO5	III

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

Department of Civil Engineering

BR-22 **SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY** **D4**

(An Autonomous Institution Under 2(f) and 12(B) of UGC Act 1956, New Delhi)

I B.Tech - I Semester – Lab MID-II Examinations

(R22MED1124) ENGINNERING WORKSHOP LAB

(Common to CE,MECH,ECE,AI&DS,AIML,IOT)

Sl.no	Exp No	Questions	CO	BT LEVEL
1	1	To To make Rectangular Tray using the given sheet metal	CO2	VI
2	2	To To make Square Tin using the given sheet metal	CO2	VI
3	3	To To make a S-Hook from a given round rod ,by following hand forging operations	CO4	III
4	4	To To make a Square Rod from a given round rod ,by following hand forging operations	CO4	III
5	5	To To prepare Single piece pattern by using the green sand mould	CO3	VI
6	6	To To prepare Split piece pattern by using the green sand mould	CO3	VI

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

Department of Civil Engineering

BR-22 **SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY** **D4**

(An Autonomous Institution Under 2(f) and 12(B) of UGC Act 1956, New Delhi)

I B.Tech - I Semester – Lab End Examinations, March-2023

(R22MED1124) ENGINNERING WORKSHOP LAB

(Common to CE,MECH,ECE,AI&DS,AIML,IOT)

Duration: 3 hrs **Max Marks: 60M**

Sl.no	Exp No	Questions	CO	BT LEVEL
1	1	To To make a T- lap joint from the given two reapers	CO1	VI
2	2	To To make a Dove Tail- lap joint from the given two reapers	CO1	VI
3	3	To To make a v-fitting from the given two ms pieces	CO2	VI
4	4	To To make a Half round fitting from the given two ms pieces	CO2	VI
5	5	To To prepare T- joint by using arc welding	CO3	VI
6	6	To To prepare Corner joint by using arc welding	CO3	VI
7	7 a	To To give connection to two lights controlled by one switch in series	CO5	III
8	7 b	To To give connection to one light controlled by two –way switches	CO5	III
9	8	To To make Rectangular Tray using the given sheet metal	CO2	VI
10	9	To To make Square Tin using the given sheet metal	CO2	VI
11	10 a	To To make a Square Rod from a given round rod ,by following hand forging operations	CO4	III
12	10 b	To To prepare Single piece pattern by using the green sand mould	CO4	III
13	11	To To make a S-Hook from a given round rod ,by following hand forging operations	CO3	VI
14	12	To To make a Square Rod from a given round rod ,by following hand forging operations	CO3	VI

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

Department of Civil Engineering

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

SUB Name: ENGINEERING WORKSHOP
SUB CODE: R22APH1124

List of Major Equipment (above Rs.10, 000)

S. No.	Name of the Equipments	Quantity
1	POWER HACKSAW	3
2	TABLE CIRCULAR SAW MACHINEWITH 1.0 HP MOTOR	3
3	WOOD WORKING LATHE	3
4	BENCH DRILLING MACHINE	3
5	WELDING MACHINE	3

Lab In charge

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

Department of Civil Engineering

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

SUB Name: ENGINEERING WORKSHOP
SUB CODE: R22MED1124

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

	Name	Make	Date	Quantity	Unit Cost	Total Cost in Rs.	Installed
1	Carpentry vice	Mek corporation	2/2/2021	15	1950	29250	2/2/2021
2	Vernier calipers	Mek corporation	2/2/2021	3	390	1170	17/2/2021
3	External Micrometer	Mek corporation	2/2/2021	3	390	1170	17/2/2021
4	Bench vice	Mek corporation	2/2/2021	15	3450	17250	2/2/2021
5	Power hacksaw	Mek corporation	2/2/2021	3	26500	79500	2/2/2021
6	Surface plate	Mek corporation	2/2/2021	3	2950	8850	2/2/2021
7	Angle plate	Mek corporation	2/2/2021	3	1080	3240	2/8/2021
8	Vernier height gauge	Mek corporation	2/2/2021	3	3950	11850	17/2/2021
9	Spirit level	Mek corporation	2/2/2021	3	296	2664	17/2/2021
10	Grinding Machine	Mek corporation	2/2/2021	3	2350	7050	2/2/2021
11	Bench shear machine	Mek corporation	2/2/2021	3	2780	8340	2/2/2021
12.	Leg vice	Mek corporation	2/2/2021	3	3250	9750	2/2/2021
13	Stakes	Mek corporation	2/2/2021	12	780	9360	17/2/2021
14	Anvil	Mek corporation	2/2/2021	3	5150	15450	2/2/2021
15	Swage block	Mek corporation	2/2/2021	3	5150	15450	2/2/2021

16	Blower with Smith's hearth(Black smithy)	Mek corporation	2/2/2021	3	6500	19500	2/2/2021
17	Wooden wiring boards	Mek corporation	2/2/2021	3	200	600	17/2/2021
18	Bulb holders	Mek corporation	2/2/2021	15	20	300	17/2/2021
19	Switch boards	Mek corporation	2/2/2021	3	30	90	19/3/2021
20	Bulbs	Mek corporation	2/2/2021	15	15	225	17/2/2021
21	Foundry Lab	Mek corporation	2/2/2021	3	18600	55800	17/2/2021
22	Welding machine	Mek corporation	2/2/2021	3	5500	16500	2/2/2021
23	Pipe vice	Mek corporation	2/2/2021	3	980	2940	2/2/2021
24	Bench drilling machine	Mek corporation	2/2/2021	3	9100	27300	2/2/2021
					Total: 343599		

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

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

Department of Civil Engineering

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

SUB Name: ENGINEERING WORKSHOP
SUB CODE: R22MED1124

List of Labeling /Number Code of the equipment:

SICET/MED/EWS/CPVICE/1-15	SICET/MED/EWS/CPVICE/2-15
SICET/MED/EWS/CPVICE/3-15	SICET/MED/EWS/CPVICE/4-15
SICET/MED/EWS/CPVICE/5-15	SICET/MED/EWS/CPVICE/6-15
SICET/MED/EWS/CPVICE/7-15	SICET/MED/EWS/CPVICE/8-15
SICET/MED/EWS/CPVICE/9-15	SICET/MED/EWS/CPVICE/10-15
SICET/MED/EWS/CPVICE/11-15	SICET/MED/EWS/CPVICE/12-15
SICET/MED/EWS/CPVICE/13-15	SICET/MED/EWS/CPVICE/14-15
SICET/MED/EWS/CPVICE/15-15	SICET/MED/EWS/VCALIPERS/1-3
SICET/MED/EWS/VCALIPERS/2-3	SICET/MED/EWS/VCALIPERS/3-3
SICET/MED/EWS/EM/1-3	SICET/MED/EWS/EM/2-3
SICET/MED/EWS/EM/3-3	SICET/MED/EWS/BNVICE/1-15
SICET/MED/EWS/BNVICE/2-15	SICET/MED/EWS/BNVICE/3-15
SICET/MED/EWS/BNVICE/4-15	SICET/MED/EWS/BNVICE/5-15
SICET/MED/EWS/BNVICE/6-15	SICET/MED/EWS/BNVICE/7-15
SICET/MED/EWS/BNVICE/8-15	SICET/MED/EWS/BNVICE/9-15
SICET/MED/EWS/BNVICE/10-15	SICET/MED/EWS/BNVICE/11-15
SICET/MED/EWS/BNVICE/12-15	SICET/MED/EWS/BNVICE/13-15
SICET/MED/EWS/BNVICE/14-15	SICET/MED/EWS/BNVICE/15-15
SICET/MED/EWS/PHS/1-3	SICET/MED/EWS/PHS/2-3
SICET/MED/EWS/PHS/3-3	SICET/MED/EWS/SUPLATE/1-3
SICET/MED/EWS/SUPLATE/2-3	SICET/MED/EWS/SUPLATE/3-3
SICET/MED/EWS/AVPLATE/1-3	SICET/MED/EWS/AVPLATE/2-3
SICET/MED/EWS/AVPLATE/3-3	SICET/MED/EWS/VHGAUGE/1-3
SICET/MED/EWS/VHGAUGE/2-3	SICET/MED/EWS/VHGAUGE/3-3
SICET/MED/EWS/SPIRITLEVEL/1-3	SICET/MED/EWS/SPIRITLEVEL/2-3
SICET/MED/EWS/SPIRITLEVEL/3-3	SICET/MED/EWS/BSM/2-3
SICET/MED/EWS/GRINDING MAH/1-3	SICET/MED/EWS/LEGVICE/1-3
SICET/MED/EWS/GRINDING MAH/2-3	SICET/MED/EWS/LEGVICE/3-3
SICET/MED/EWS/GRINDING MAH/3-3	SICET/MED/EWS/STAKES/2-12
SICET/MED/EWS/BSM/1-3	SICET/MED/EWS/STAKES/4-12
SICET/MED/EWS/BSM/3-3	SICET/MED/EWS/STAKES/6-12
SICET/MED/EWS/LEGVICE/2-3	SICET/MED/EWS/STAKES/8-12
SICET/MED/EWS/STAKES/1-12	SICET/MED/EWS/STAKES/10-12
SICET/MED/EWS/STAKES/3-12	SICET/MED/EWS/STAKES/12-12
SICET/MED/EWS/STAKES/5-12	SICET/MED/EWS/WWB/2-3
SICET/MED/EWS/STAKES/7-12	SICET/MED/EWS/BULB HOIDERS/1-15
SICET/MED/EWS/STAKES/9-12	SICET/MED/EWS/BULB HOIDERS/3-15
SICET/MED/EWS/STAKES/11-12	SICET/MED/EWS/BULB HOIDERS/5-15

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

Department of Civil Engineering

SICET/MED/EWS/ANV/1-3	SICET/MED/EWS/BULB HOIDERS/7-15
SICET/MED/EWS/ANV/2-3	SICET/MED/EWS/BULB HOIDERS/9-15
SICET/MED/EWS/ANV/3-3	SICET/MED/EWS/BULB HOIDERS/11-15
SICET/MED/EWS/SBLOCK/1-3	SICET/MED/EWS/BULB HOIDERS/13-15
SICET/MED/EWS/SBLOCK/2-3	SICET/MED/EWS/BULB HOIDERS/15-15
SICET/MED/EWS/SBLOCK/3-3	SICET/MED/EWS/SWITCH BOARDS/2-3
SICET/MED/EWS/AB/1-3	SICET/MED/EWS/FOUNDRY LAB/1-3
SICET/MED/EWS/AB/2-3	SICET/MED/EWS/FOUNDRY LAB/3-3
SICET/MED/EWS/AB/3-3	SICET/MED/EWS/WM/2-3
SICET/MED/EWS/WWB/1-3	SICET/MED/EWS/PIPE VICE/1-3
SICET/MED/EWS/WWB/3-3	SICET/MED/EWS/PIPE VICE/3-3
SICET/MED/EWS/BULB HOIDERS/2-15	SICET/MED/EWS/BDM/2-3
SICET/MED/EWS/BULB HOIDERS/4-15	SICET/MED/EWS/BULBS/1-3
SICET/MED/EWS/BULB HOIDERS/6-15	SICET/MED/EWS/BULBS/3-3
SICET/MED/EWS/BULB HOIDERS/8-15	
SICET/MED/EWS/BULB HOIDERS/10-15	
SICET/MED/EWS/BULB HOIDERS/12-15	
SICET/MED/EWS/BULB HOIDERS/14-15	
SICET/MED/EWS/SWITCH BOARDS/1-3	
SICET/MED/EWS/SWITCH BOARDS/3-3	
SICET/MED/EWS/FOUNDRY LAB/2-3	
SICET/MED/EWS/WM/1-3	
SICET/MED/EWS/WM/3-3	
SICET/MED/EWS/PIPE VICE/2-3	
SICET/MED/EWS/BDM/1-3	
SICET/MED/EWS/BDM/3-3	
SICET/MED/EWS/BULBS/2-3	

Lab In charge

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

Department of Civil Engineering

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

SUB Name: ENGINEERING WORKSHOP
SUB CODE: R22MED1124

ENGINEERING WORKSHOP 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. Checkout 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 of 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 the 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

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

Department of Civil Engineering

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

SUB Name: ENGINEERING WORKSHOP

SUB CODE: R22MED1124

ENGINEERING WORKSHOP LAB - 1

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
4	Types of electrical switches board	1
5	Tube lights	2
6	Fans	4
7	Safety guide line board	1
8	Program educational outcomes board	1
9	Program outcomes board	1
10	Notice board	1

Lab In charge

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

Department of Civil Engineering

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

SUB Name: ENGINEERING WORKSHOP LAB
SUB CODE: R22MED1124

ENGINEERING WORKSHOP LAB - 2

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
4	Types of electrical switches board	1
5	Tube lights	2
6	Fans	4
7	Safety guide line board	1
8	Program educational outcomes board	1
9	Program outcomes board	1
10	Notice board	1

Lab In charge

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

Department of Civil Engineering

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

SUB Name: ENGINEERING WORKSHOP LAB
SUB CODE: R22MED1124

ENGINEERING WORKSHOP LAB - 3

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
4	Types of electrical switches board	1
5	Tube lights	2
6	Fans	4
7	Safety guide line board	1
8	Program educational outcomes board	1
9	Program outcomes board	1
10	Notice board	1

Lab In charge