

**Mechanical Engineering Department
Laboratory Information**

SN	Name of the Laboratory	No. of students per setup (Batch size)	Name of Important Equipment	Technical manpower support		
				Name of Technical staff	Designation	Qualification
1	Thermal Engg.	Upto 20	<ul style="list-style-type: none"> ➤ Vertical Diesel Engine of 10 HP Cap. ➤ Variable Compression Ratio Petrol Engine Test ➤ Rig with D.C. Generator ➤ Computerized Single Cylinder Four Stroke ➤ Diesel Engine test Rig ➤ Compact Portable Five Way Exhaust Gas ➤ Analyzer For Petrol Engine ➤ Two Stage Air Compressor Test Rig ➤ Four Stroke Four Cylinder Petrol Engine Test Rig ➤ Water Cooled Eddy Current Dynamometer ➤ Emission Analyzer For Diesel Engine Exhaust 	1. Shri. Y. P. Warudkar 2. Shri. S.A. Tumram 3. Shri. A. N. Pande 4. Shri. V. N. Bihade 5. Shri.S. R. Ronghe	Chargeman Store Keeper Lab. Assistant Lab. Assistant Lab. Assistant	SSC, I.T.I B. Com B. A. I.T.I. H. S. C. SSC, Diploma (Automobile)

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2	Fluid Power lab	Upto 20	<ul style="list-style-type: none"> ➤ Pneumatic Circuit trainer system ➤ App. For Determining Friction Losses in Pipes ➤ App. For Verification of Bernoulli's Theorem ➤ Reynolds Apparatus Open Circuit ➤ App. For Determination of Metacentric Height ➤ Reciprocation Pump Test Ring ➤ Pelton Wheel Test Rig ➤ Francis Turbine Test Rig ➤ Hydraulic Ram App. ➤ Pressure Measurement App. ➤ Impact Jet App. with access. ➤ V-Notch / Rectangular Notch Test Rig ➤ Orifice & Mouth piece app. 	1. Shri. Y. P. Warudkar 2. Shri. S.A. Tumram 3. Shri. A. N. Pande 4. Shri. V. N. Bihade 5. Shri.S. R. Ronghe	Chargeman Store Keeper Lab. Assistant Lab. Assistant Lab. Assistant	SSC, I.T.I B. Com B. A. I.T.I. H. S. C. SSC, Diploma (Automobile)
3	Theory of Machine Lab	Upto 20	<ul style="list-style-type: none"> ➤ Complete Vibration Apparatus ➤ Whirling of shaft App. with stroboscope ➤ Journal Bearing App. ➤ Motorized Gyroscope 	1. Shri. Y. P. Warudkar 2. Shri. S.A. Tumram 3. Shri. A. N. Pande 4. Shri. V. N. Bihade 5. Shri.S. R. Ronghe	Chargeman Store Keeper Lab. Assistant Lab. Assistant Lab. Assistant	SSC, I.T.I B. Com B. A. I.T.I. H. S. C. SSC, Diploma (Automobile)
4	Measurement lab	Upto 20	Univeral Strain Gauge Load Cell Instrumentation Tutor Part - I Instrumentation Tutor Part- II (Analog) Instrumentation Tutor Part - III	1. Shri. Y. P. Warudkar 2. Shri. S.A. Tumram 3. Shri. A. N. Pande	Chargeman Store Keeper Lab. Assistant	SSC, I.T.I B. Com B. A. I.T.I.

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			Displacement Measurement Tutor Pressure Measurement Tutor Strain Measurement Tutor Temperature Measurement Tutor Water Level Measurement Tutor Torque Measurement Tutor RPM/Speed Measurement Tutor Vibration Measurement Tutor	4. Shri. V. N. Bihade 5. Shri.S. R. Ronghe	Lab. Assistant Lab. Assistant	H. S. C. SSC, Diploma (Automobile)
5	CAD/CAM	Upto 20	Software :- (1) Solid works (2) Solid works Animator (3) Photo works (4) Solid works Toolbox (5) e Drawing Pro (6) Cosmos works (7) Cosmos Motion (8) Cosmosworks Flo Works Solid Cam Software ANSYS Software 13.0 Catia Software Catia V5 R 21 Single Integrated Autiomatiion Studio Software Desktop Computer (All in one) Make HP	1. Shri. Y. P. Warudkar 2. Shri. S.A. Tumram 3. Shri. A. N. Pande 4. Shri. V. N. Bihade 5. Shri.S. R. Ronghe	Chargeman Store Keeper Lab. Assistant Lab. Assistant Lab. Assistant	SSC, I.T.I B. Com B. A. I.T.I. H. S. C. SSC, Diploma (Automobile)
6	Heat Transfer Lab	Upto 20	Pin fin App. Forced Convection App. App. For Thermal Conductivity of Metal Rod App. For Thermal Conductivity of Composite Wall Heat transfer in Natural Convection Thermal Conductivity of Insulating	1. Shri. Y. P. Warudkar 2. Shri. S.A. Tumram 3. Shri. A. N. Pande 4. Shri. V. N. Bihade	Chargeman Store Keeper Lab. Assistant Lab. Assistant	SSC, I.T.I B. Com B. A. I.T.I. H. S. C.

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			<p>Powder App. Heat Pipe Demonstrator App. For determination of emissivity of grey body App. For Verification of Stephen-Boltzmann Law App. For trial on double pipe heat exchanger App. for determination of efficiency of Cross Flow Heat Exchanger Shell & Tube Heat Exchanger</p>	5. Shri.S. R. Ronghe	Lab. Assistant	SSC, Diploma (Automobile)
7	Automobile Lab	Upto 20	<ul style="list-style-type: none"> ➤ Zenith Carburetor ➤ Instruction model clutch coupling ➤ Hemispherical sectional model ➤ Model of sectional Diesel Fuel Injection pump & auto mizer ➤ Sectionised mechanical Fuel Pumps ➤ Model of Disc Brake ➤ Model of Hydraulic Brake ➤ Steering Gear Unit ➤ Gas Flow Meter ➤ Diesel Smoke Meter 	<p>1. Shri. Y. P. Warudkar 2. Shri. S.A. Tumram 3. Shri. A. N. Pande 4. Shri. V. N. Bihade 5. Shri.S. R. Ronghe</p>	<p>Chargeman Store Keeper Lab. Assistant Lab. Assistant Lab. Assistant</p>	<p>SSC, I.T.I B. Com B. A. I.T.I. H. S. C. SSC, Diploma (Automobile)</p>
8	Computer Centre	Upto 20	<ul style="list-style-type: none"> ➤ Special type of Wooden Computer Table <p>Learning Resources CD's of :</p> <p>(a) Pre-Installer for L.R. (b) Express Set-up 1) Machine Design 2) Automobile Engg.</p>	<p>1. Shri. Y. P. Warudkar 2. Shri. S.A. Tumram 3. Shri. A. N. Pande 4. Shri. V. N. Bihade</p>	<p>Chargeman Store Keeper Lab. Assistant Lab. Assistant</p>	<p>SSC, I.T.I B. Com B. A. I.T.I. H. S. C.</p>

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			<p>3) Thermal Engg. 4) Machine Tool Design/Tool Engg. 5) CNC Machine 6) Hydraulic/fluid Mechanics Laser Printer H. P.</p> <ul style="list-style-type: none"> ➤ Flat Bed Document Scanner 1200x1200 ➤ Multimedida Projector ➤ HP Printer Digital Copier & Multifunctional office Machine ➤ Desktop Computer ➤ All in one Desktop Computer 	5. Shri.S. R. Ronghe	Lab. Assistant	SSC, Diploma (Automobile)
9	RAC Lab	Upto 20	<ul style="list-style-type: none"> ➤ Refrigeration trainer ➤ Birams' Anemometer 4 dials Range- 10000 ➤ Meter No. 153346, 153140 ➤ Vortex Tube Refrigerator ➤ Ice Plant Tutor Model : RAC04 ➤ Thermoelectric Refrigeration trainer Cap.48 Ltrs 	<p>1. Shri. Y. P. Warudkar 2. Shri. S.A. Tumram 3. Shri. A. N. Pande 4. Shri. V. N. Bihade 5. Shri.S. R. Ronghe</p>	<p>Chargeman Store Keeper Lab. Assistant Lab. Assistant Lab. Assistant</p>	<p>SSC, I.T.I B. Com B. A. I.T.I. H. S. C. SSC, Diploma (Automobile)</p>
10	Renewa ble Energy Sources Lab.	Upto 20	<ul style="list-style-type: none"> ➤ Biomas Gasifier engine & Pump set ➤ LYNX Sunshine Recorder ➤ Solar Photovoltic Energy mini lab. Kit ➤ Wind Turbine Generator ➤ Pyroheliometer Make EPLAB ➤ Solar Water Heating System Cap. 150 Ltrs. ➤ Solar PV Lab. Kit 	<p>1. Shri. Y. P. Warudkar 2. Shri. S.A. Tumram 3. Shri. A. N. Pande 4. Shri. V. N. Bihade 5. Shri.S. R. Ronghe</p>	<p>Chargeman Store Keeper Lab. Assistant Lab. Assistant Lab. Assistant</p>	<p>SSC, I.T.I B. Com B. A. I.T.I. H. S. C. SSC, Diploma (Automobile)</p>

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11	Metrology Lab	Upto 20	<ul style="list-style-type: none"> ➤ Grinding Tool Dynamometer ➤ Drilling Tool Dynamometer ➤ Milling Tool Dynamometer ➤ Sine Bar 	1. Shri. Y. P. Warudkar 2. Shri. S.A. Tumram 3. Shri. A. N. Pande 4. Shri. V. N. Bihade 5. Shri.S. R. Ronghe	Chargeman Store Keeper Lab. Assistant Lab. Assistant Lab. Assistant	SSC, I.T.I B. Com B. A. I.T.I. H. S. C. SSC, Diploma (Automobile)
12	Mechatronics Lab	Upto 20	<ul style="list-style-type: none"> ➤ Mechatronics Lab Set Up ➤ Pneumatic Trainer ➤ Robot arm 	1. Shri. Y. P. Warudkar 2. Shri. S.A. Tumram 3. Shri. A. N. Pande 4. Shri. V. N. Bihade 5. Shri.S. R. Ronghe	Chargeman Store Keeper Lab. Assistant Lab. Assistant Lab. Assistant	SSC, I.T.I B. Com B. A. I.T.I. H. S. C. SSC, Diploma (Automobile)
13	Production Engineering Lab	Upto 20	<ul style="list-style-type: none"> ➤ Computer Pentium IV Processor Intel ➤ ANSYS Software 13.0 (Perpetual) 5 user ➤ Single Integrated Automation Studio Software ➤ Grinding Tool Dynamometer ➤ Drilling Tool Dynamometer ➤ Milling Tool Dynamometer ➤ Digital color CMOS Camera with UPS ➤ Electric Discharge Machine (EDM) ➤ Cubify Sense Scanner Model 	1. Shri. Y. P. Warudkar 2. Shri. S.A. Tumram 3. Shri. A. N. Pande 4. Shri. V. N. Bihade 5. Shri.S. R. Ronghe	Chargeman Store Keeper Lab. Assistant Lab. Assistant Lab. Assistant	SSC, I.T.I B. Com B. A. I.T.I. H. S. C. SSC, Diploma (Automobile)

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			<ul style="list-style-type: none"> ➤ 3 D White Light Scanner System ➤ Rapid Prototyping Machine ➤ CNC Milling Machine ➤ CNC Controller 			
14	Engineering Metallurgy (Total Cost of Equipment Rs.9.05 lakh)	5*4 = 20	<ul style="list-style-type: none"> ➤ Hardness testing M/c ➤ Brinell Hardness Testing Machine Model TKB 3000 ➤ Universal Testing Machine ➤ Binocular Microscope ➤ Monocular Microscope ➤ Muffle Furnace ➤ Belt Sanding Machine ➤ Lapping Machine ➤ Optical Brinell Hardness tester 	1. Shri. Y. P. Warudkar 2. Shri. P. V. Narkhade 3. Shri. A. N. Pande 4. Shri. V. N. Bihade 5. Shri.S. R. Ronghe	Chargeman Store Keeper Lab. Assistant Lab. Assistant Lab. Assistant	SSC, I.T.I B. Com B. A. I.T.I. H. S. C. SSC, Diploma (Automobile)