



TONTADARYA COLLEGE OF ENGINEERING, GADAG.

DEPARTMENT OF MECHANICAL ENGINEERING



SEMESTER: III/IV

Mechanical Measurements & Metrology Laboratory

CARPET AREA : 66 Sq Mts

TOTAL COST : Rs. 2,84,946.00

LIST OF EQUIPMENTS

Sl. NO	PARTICULARS	QTY
1	Sine bar and sine centre	1
2	Autocollimator	1
3	Profile projector	1
4	Electronic comparator	1
5	Gear tooth Vernier caliper	1
6	Tool maker's microscope	1
7	Pressure cell	1
8	Strain gauge	1
9	Load cell	1
10	Torque cell	1
11	Lathe tool dynamometer	1
12	Drill tool dynamometer	1
13	L.V.D.T	1
14	Optical Flats with Monochromatic Light source	1
15	Three Wire	1
16	Thermocouple	1
17	Slip Gauge Box M112	1
18	Surface plate	1

STAFF IN-CHARGE

Dr. D M Goudar

H O D

Prof. Mahesh Cha Kittur

Faculty In-Charge

Mr. M S Patil

Instructor



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MECHANICAL MEASUREMENTS AND METROLOGY LABORATORY

LIST OF EXPERIMENTS

Sub Code: 15MEL37B/15MEL47B

Hours/Week:03

Total Hours:42

IA Marks:20

Exam Hours:100

Exam Marks:80

PART-A

- 1 Calibration of Pressure Gauge
- 2 Calibration of Thermocouple
- 3 Calibration of LVDT
- 4 Calibration of Load cell
- 5 Determination of modulus of elasticity of a mild steel specimen using strain gauges

PART-B

- 6 Measurement of angle using Sine Center / Sine bar / bevel protractor
- 7 Measurement of alignment using Autocollimator / Roller set
- 8 Measurement of cutting tool forces using (a) Lathe tool Dynamometer (b) Drill tool Dynamometer
- 9 Measurements of Screw thread Parameters using two wire or Three-wire methods.
- 10 Measurements of Surface roughness, Using Tally Surf/Mechanical Comparator
- 11 Measurement of gear tooth profile using gear tooth Vernier /Gear tooth micrometer
- 12 Calibration of Micrometer using slip gauges
- 13 Measurement of flatness using Optical Flats

