Name of Faculty : AMIT
Discipline : Mechanical
Sem. : 6th
Subject : I.Q.C

Week	Theory		Practical	
	Lecture day	Topic	Practical Day	Topic
1	1	• Introduction, units of measurement standards, interchangability		Use of dial Indicator for measuring Taper
	2	• International, National, Company standard		
	3	• Line & wavelength standard		
	4	• Planning of Inspection		
2	1	• Types of Inspection		Use of Combination Set, bevel protector & Sine bar
	2	• Factors influencing quality		
	3	• Basic Principles of measurement & gauging		
	4	• Calliper, micrometer, dial indicator		
3	1	• Surface Plate, straight edge try square, protectors		Measurement of thread Characteristic using vernier & gauges
	2	• Sine bar, Clinometer,		
	3	• Comparators		
	4	• Slip gauge, tool room, micro scope, Profile projector.		
4	1	• Limit Gauge		Use of slip gauge in measurement of centre dist. b/w two pins.
	2	• Plug, ring, snap, taper gauge		
	3	• Thread, height, depth, form		
	4	• Feeler, wire		
5	1	• App.s for linear, angular measurement		Use of tool maker's microscope & Comparator
	2	• Surface, thread, gear measurement		
	3	• Gauge tolerances		
	4	• Geometrical parameters		
6	1	• Error & their effect on quality		Plot frequency distribution for 50 turned components
	2	• Concept of error		
	3	• Measurement of straightness		
	4	• " " Flatness		

WK	Theory		Practical	
	lecture day	Topic	Practical day	Topic
7	1 2 3 4	· Measurement of Parallelism · Alignment tests on Lathe · " " " drilling · " " " Milling		with the help of given data plot X, R, P & C charts
8	1 2 3 4.	· Basic statistical Concepts · empirical distribution & Histograms · Frequency, mean, mode, S.D, N.D Binomial & Poisson		Repeat Ist Practical
9	1. 2. 3 4.	· Simple examples — do — · Introduction to control charts · X & R charts		Repeat 2nd Practical
10.	1. 2 3. 4.	· P & C charts Applications Sampling Plan, selection of sample size Method of sampling, Frequency " "		Repeat 3rd Practical
11	1. 2 3 4	· Inspection plan format and test reports · Concept of T.Q.M · National & International Codes · ISO - 9000		Repeat 4th Practical
12.	1. 2 3 4.	· QC Tools · Introduction to Kaizen " " 5S Introduction to instrumentation		Repeat 5th Practical

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Week	Theory		Practical	
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13.	1.	• Measurement of Mechanical quantities		Repeat 6th Practical
	2	• Measurement of Displacement		
	3	• " • Vibration		
	4.	• " • Frequency		
14.	1	• Pressure Measurement		Repeat 7th Practical
	2	• Temp. "		
	3	• Electromechanical Transducer		
	4.	Resistive type		
15.	1.	Capacitance type		
	2.	" "		
	3.	Inductance type		
	4.	" "		