

Maharaja Ranjit Singh Punjab Technical University, Bathinda

Purchase of Apparatus for Mechanical Measurement & Metrology Lab at PIT GTB Garh

Name of Work:

Name of Agency

Sl. No.	Description of Item	Qty.	Unit
1	Measurement of an angle with the help of sine bar	1	No.
	Sine Bar	1	No.
	Sine Bar Normal Quality : 200mm	1	No.
	Slip Gauges	1	No.
	Slip Gauge Accessoires Set : INDIAN -Set of 17 pieces	1	No.
	Slip Gauge Accessoires Set : MICRO GERMAN - Set of 17 pieces	1	No.
2	Measurement of surface roughness of a machined Plate, Rod and Pipe		
	Surface Roughness Tester	1	No.
	TR110		
	Roughness parameter Ra, Rz, Rt, Rq Tracing length 6mm		
	Tracing speed 1.0mm/sec		
	Cut-off lengths 0.25mm/0.8mm/2.5mm Evaluation length		
	1.25mm/4.0mm/5.0mm		
	Measuring range Ra: 0.05-10.0µm Rz: 0.1-50µm		
	Tolerance ±15% Repeatability		
	Measurement of gear elements using profile projector		
	Profile projector		
	Profile projector, ...with std. Acc. Mag. upto 100x Screen dia 200mm	1	No.
Profile projector, ...with std. Acc. Mag. upto 100x Screen dia 300mm	1	No.	
Measurement of effective diameter of external threads using Three wire method			
Vernier Caliper			
Mitutoyo : 150mm	1	No.	
Mitutoyo : 200mm	1	No.	
Mitutoyo : 300mm	1	No.	
MICRO GERMAN : 150mm	1	No.	

9

MICRO GERMAN 200mm	1	No.	
MICRO GERMAN 300mm	1	No.	
ITI INDIAN : 150mm	1	No.	
ITI INDIAN 200mm	1	No.	
ITI INDIAN 300mm	1	No.	
CHINA : 150mm	1	No.	
CHINA : 200mm	1	No.	
CHINA : 300mm			
Micrometer	1	No.	
Micrometer, .0-25mm: Mitutoyo	1	No.	
Micrometer, .0-25mm: MICRO GERMAN	1	No.	
Micrometer, .0-25mm: ITI INDIAN	1	No.	
Micrometer, .0-25mm: CHINA			
Vernier Height Gauge	1	No.	
Mitutoyo : 12"/300mm	1	No.	
Mitutoyo : 24"/600mm	1	No.	
MICRO GERMAN: 12"/300mm	1	No.	
MICRO GERMAN: 18"/450mm	1	No.	
MICRO GERMAN: 24"/600mm	1	No.	
ITI Indian : 12"/300mm	1	No.	
ITI Indian :18"/450mm	1	No.	
ITI Indian : 24"/600mm	1	No.	
CHINA :12"/300m	1	No.	
CHINA : 18"/450mm	1	No.	
CHINA : 24"/600mm	1	No.	
Measurement of thread element by Tool makers microscope.	1	No.	
Tool Maker Microscope			

	Tool maker microscope, with std. Acc, 30x mag					
6	Calibration of a pressure gauge with the help of a dead weight gauge tester	1	No.			
	Dead Weight Gauge Tester					
7	dead weight gauge tester, with std. Acc	1	No.			
	Use of stroboscope for measurement of speed of shaft					
8	Stroboscope	1	No.			
	Use of pitot tube to plot velocity profile of a fluid through a circular duct					
	Pitot Tube					
9	Pitot Tube Std.	1	No.			
	Preparation of a thermocouple, its calibration and application for temperature measurement					
	Thermocouple Apparatus					
	thermocouple, with Digital Display Unit					

Sp