

**SCHEDULE 1**

**INFRASTRUCTURE/ EQUIPMENT/ TEACHING AID REQUIREMENT**

**Occupation/ Course : (Manufacturing)**

**QP NOS Level : 5**

**Batch Size : 25**

**No of Trainers : 1**

**No of Demonstrators : 1**

Description		Qty	Specifications
<b>Classroom</b>		1	Minimum 8 m x 10 m
1	Student Chair	25	
2	Student Table	25	
3	Computer with Internet	1	
4	LCD Projector	1	
5	Trainer Chair & Table	1	
6	Demonstration Table	1	
7	Pin up Boards	1	
8	White Board	1	
<b>Air –Conditioned Standards Room</b>		1	50- 100sq m
1	Co-ordinate Measurement Machine	1	2'x3' , manual with different probes for measurement
2	Surface Plate granite -master	1	4'x 4'
3	Height Master	1	
4	Slip Gauges Blocks Master set	1	
5	Slip gauges ,blocks –set in use	1	
6	Surface finish measurement Machine	1	Optional
7	Roundness measurement Machine	1	Optional
8	Surface finish comparator	1	
9	Magnifying lens with light	1	
10	Table lamp	1	
11	Profile projector with 50 - x magnification	1	
12	Calibration set up for pressure gauges	1	Optional
13	Calibration setup for torque wrenches	1	
14	Measurement pins/rollers/balls for gears etc.	1set	
<b>Inspection &amp; Gauging</b>			
1	Granite surface plate	1	0.8 x 0.6 m with stand
2	Number & letter punching	1	Set
3	Instruments		
4	Steel measuring tape	1	3 m
5	Vernier caliper- mechanical	5	0-150 mm, 0-300mm
6	Vernier caliper- digital	2	0-150 mm
7	Vernier ht. gauge- analog	2	0-450 mm
8	Micro meter	5	0-25
9	Micro meter	2	25-50
10	Micro meter internal	2	5-25
11	Dial indicator plunger type	2	10 micron
12	Dial indicator lever type	2	10 micron

**SCHEDULE 1**

<b>Description</b>		<b>Qty</b>	<b>Specifications</b>
13	Plug guage	2	1 small, 1 big
14	Ring gauge	2	1 small, 1 big
15	Snap gauge	2	
16	Radius gauge set	2	
17	Thread gauge- ext / int	1	
18	Surface roughness model	1	
19	Magnifying glass	1	
20	V block magnetic	1	
21	Dial stand	2	Magnetic
22	In between centre stand	1	Set
23	Air / Bore gauges	1 each	30- 50 mm
<b>Tools &amp; accessories</b>		1	Flat
1	Smooth files	1	Flat
2	Hacksaw with blades	1	Set
3	Hammer	1	Ball peen 250 g
4	Centre punch	1	
5	Spanner set	2	Open and ring
6	Dentist's mould		
7	Plastisene or Play dough		
8	Hand tools		
9	Needle files		
10	Rough files		
11	Computer on trolley	1	
<b>Consumables (reqd. qty)</b>			
1	Oil stones		
2	Emery		
3	Dressing stone		
4	File cord		
5	Tool post packing		
6	Oil		
7	Coolant		
8	Maintenance tool kit		
9	Industrial Alcohol, acetone		
10	Wiping cloth		
11	Flat brushes		
12	Bars		Sq 50 mm & round 50 mm dia.
13	Carbide inserts		
14	Grinding wheel		
15	Stationary		
16	Spares for cutting tools		
<b>Standards National /International on ( BIS ,ISO, ASME SAE etc)</b>			
1	Drawing conventions		
2	G D & T		
3	MSA Manual / APQP Manual		
4	Gauge design and Norms		
5	Measuring Instruments		
6	Threaded Fasteners		
7	Data book – PSG college /Machinery Handbook		

**SCHEDULE 1**

<b>Description</b>		<b>Qty</b>	<b>Specifications</b>
<b>Miscellaneous</b>			
1	Tools/ instrument cabinet		For storage
2	Standards /stationery		For storage
3	Table & chairs		
4	Student bench		
5	White board	1	
6	Safety simulation kit		
7	Safety PPE		Apron, glasses, gloves, shoes
8	Inspection table	4	
9	Pin up boards		
10	Automotive casting		Samples for measurement practice
11	Machined components large		Samples for measurement practice
12	Machined Components small		Samples for measurement practice
13	Sheet metal fabrications		Samples for measurement practice
14	Forged components		Samples for measurement practice
15	Fasteners , threaded parts		various
16	Sectional models		optional
17	Plastic / rubber components		
18	Oil trolley		
19	Dust bin		
20	First aid kit		
<b>Furnishing/ others</b>			
1	Tools/ instrument cabinet		For storage
2	Raw material cabinet		For storage
3	Trainer table & chair		
4	Student bench		
5	White board	1	
6	Safety simulation kit		
7	Safety PPE		Apron, glasses, gloves, shoes
8	Inspection table	4	
9	Pin up boards		
10	Automotive casting		Samples
11	Forged parts		Samples
12	Powder coating part		Samples
13	Welded parts		Samples
14	Sub assembly parts		Samples
15	Fasteners		M6 & M8 bolt & screws
16	Sectional models		
17	Cutting tools display		
18	Sample of machined parts		
19	Oil trolley		
20	Dust bin/ Chip Bin		
21	First aid kit		

## TRAINER PROFILE

**Occupation/ Course : (Manufacturing)**  
**Level :**  
**Batch Size : 25**  
**No. of Trainers : 1**  
**No. of Demonstrators : 1**

Education Qualification	Engineer/ Diploma in Mechanical
Experience	<ul style="list-style-type: none"> <li>▪ Minimum 5 years experience in a Standards' Room of a Manufacturing Organization</li> <li>▪ Experience of working with CMM, measurement of Geometric parameters of complex components, Gauges &amp; measurement systems</li> <li>▪ Teaching &amp; Training experience will be an added advantage</li> </ul>
Technical Skills	<ul style="list-style-type: none"> <li>▪ Good understanding of Machine/ Engineering Drawing</li> <li>▪ Good understanding of Inspection and Gauging tools</li> <li>▪ Understanding of GD &amp; T , MSA , SPC , Gauge Design of Go , NO Go &amp; Acceptance types</li> <li>▪ Should be able to demonstrate usage of machines, equipment, instruments &amp; tools used in the Standards' Room</li> <li>▪ Should be able to answer queries related to CMM, Calibration, Gauge Design</li> <li>▪ Should be able to calibrate equipment based on Standard practices &amp; carry out minor repairs.</li> <li>▪ Should be able to conduct measurements of precision parts / standard components of Automotive components</li> <li>▪ Ability to conduct R &amp; R , Process capability studies , Calibration of gauges and instruments</li> <li>▪ Understanding of 5S, Quality &amp; Safety</li> </ul>
Other Skills	<ul style="list-style-type: none"> <li>▪ Should be able to communicate well in English</li> <li>▪ Good command on regional language</li> <li>▪ Knowledge of working on computers</li> <li>▪ Should be able to prepare lesson plan, deliver the courses through the specified media as per schedule</li> <li>▪ Should be able to inspire the trainees &amp; evaluate and assess the trainees</li> <li>▪ Should be able to monitor progress and give feedback to trainees</li> <li>▪ Should be able to maintain MIS related to training</li> </ul>

