

**Annexure -VIII****.Name of laboratory : Drawing Lab**

<b>Sr. No.</b>	<b>Name of Equipt./Machinery</b>	<b>Technical Specifications</b>	<b>Minimum Qty./Nos. Required</b>	<b>Remark if any</b>
1	Charts showing Auxiliary views of any three object.	With first angle method of projection.	03 set	
2	Models of Intersection of solids	i) Cylinder to cylinder penetration. ii)Cylinder to prism. iii)Cone to Cylinder iv) prism to prism.	02 Each	
3	Model & charts of Developments of Surfaces.	Developments of Lateral surfaces of cube, prisms, cylinder, pyramids & cone	02 Each	
4	Standard chart for Conventional Representation	i) Materials ii)break in pipe, rod and shaft. iii) Ball and Roller bearing, pipe joints, cocks, valves, internal / external threads. iv) Various sections- Half, removed, revolved, offset, partial and aligned sections v) Knurling, serrated shafts, splined shafts , and chain wheels. vi) Springs with square and flat ends, Gears, sprocket wheel vii) Countersunk & counterbore. viii) Tapers	02 Each	
5	Standard chart for Limits, Fits and Tolerances	Standard chart	2	
6	Model & charts of Assembly	1. Couplings – Universal couplings & Oldham’s Coupling 2. Bearing – Foot Step Bearing & Pedestal Bearing 3. Lathe tool Post 4. Machine vice & Pipe Vice	02 Each	

7	Model & charts of Assembly to Details	<ol style="list-style-type: none"> <li>1. Pedestal Bearing</li> <li>2. Lathe Tail Stock</li> <li>3. Drilling Jig</li> <li>4. Piston &amp; connecting rod</li> <li>5. Gland and Stuffing box</li> </ol> Assembly 6. Valve – Not more than eight parts 7. Fast & loose pulley	02 Each	
8	Cut section model of 3D object	3D object having slot, circular hole, etc.	10 different model	
9	Model & charts of Solids	of Prism, Pyramid, Cone, Cylinder, Tetrahedron & Cube	02 Each	
10	Model & charts of Sections of Solids	Sections of Solids Prism, Pyramid, Cone, Cylinder, Tetrahedron & Cube	02 Each	
11	Model & charts of Developments of Surfaces.	Developments of Lateral surfaces of cube, prisms, cylinder, pyramids & cone	02 Each	
12	Model & charts of Free hand sketches	Free hand sketches of nuts, bolts, rivets, threads, split pin, foundation bolts, keys and couplings.	02 Each	
13	Auto CAD Software	Auto CAD 2007	Any 1 SHEET with 10 Users licence.	
14	working models of i) Cotter Joint, ii)Knuckle Joint, iii)Bell Crank Lever, iv)Turn Buckle, v)Off – Set link, vi)Pulley	working models / Acrylic / Aluminium Cast	01 each	
15	Working models of Shaft,(solid,hollow,spline) Keys,(parrallel ,taper,feather,tangent ,woodruff etc.) Power Transmission devices:-belt drive,Chain drive.Gear drive, Clutches, gear trains,Coupling(rigid,Flexible).	working models / Acrylic / Aluminium Cast	01 each	
16	Working models of Bearings	Ball,Roller,Taper roller,Pedastal.,Journal,Pivot,etc		
17	wall charts	Tolarences,Surface finish,Limits,Fits		
18	Models of Lead screw of lathe, feed screws of machine tools, Clamping screws, Toggle Jack screw, Screw jack	Metallic models		
19	Helical Springs, Screwed joints, Welded joints	Plastic coated Wall Charts of helical compression and Leaf Springs of different types,different types of screw joints and welded joints		



