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Name of Item:		Purchase of FLUID MACHINERY Lab Apparatus for PIT GTB Garh, MOGA	
Sr. No.	Description of Item	Qty.	Unit
1	<p>To draw the characteristics of Pelton Turbine</p> <hr/> <p>Pelton Turbine test Rig</p> <hr/> <p>Output Power 1 kw Output Power:1KW or 3 KW. Discharge : 630 LPM (Approx.) Supply Head : 45 m Speed : 1000 RPM (Approx.) Impeller: Material Bucket type. Nozzle: Material Stainless Steel. Spear: Material Stainless Steel. Dynamometer: Rope Brake type, Dia 300 mm. Sump Tank: Capacity 400 Ltrs. Water Circulation: Centrifugal Pump (Kirlosker make), Capacity 15 HP, Three Phase. Discharge Measurement: Pitot Tube with Manometer.</p>	1	No.
2	<p>To draw the characteristics of Francis Turbine</p> <hr/> <p>Francis Turbine Test Rig, Output Power 1kW</p> <hr/> <p>UTILITIES REQUIRED: Water Supply and Drain. Electricity 5 kW, 440V AC, Three Phase. Floor Area 2 x 1 m. TECHNICAL DETAILS: Output Power : 1 KW, Discharge : 1000 LPM (Approx.) Supply Head : 10 m (Approx.) Speed : 1000 RPM (Approx.) Runner: Having Curved Vanes. Dynamometer: Rope Brake type. Sump Tank : Capacity 200 Ltrs. Water Circulation: Centrifugal Pump, Standard Make, Capacity 5 HP Three Phase. Discharge Measurement : Pitot Tube with Manometer Control Panel Comprises of : L&T make Starter, Mains Indicator, MCB for overload protection. Instruction Manual : An ENGLISH instruction manual will be provided along With the Apparatus Tanks will be made of Stainless Steel.</p>	1	No.

3	<p>To draw the characteristics of Kaplan Turbine</p> <hr/> <p>KAPLAN TURBINE TEST RIG</p> <hr/> <p>UTILITIES REQUIRED : Electricity Supply: Three phase, 420 VAC, 50 Hz, 32 Amp. 4 Pole MCB with earth connection. Water supply (Initial Fill) Floor Drain Required. Floor Area required: 5.5 x 1.5 m Tachometer to measure RPM □ Mercury for Manometer (250gms) TECHNICAL DETAILS : Output Power : 3 KW or 1 KW Discharge : 6000 LPM, Supply Head : 5M Speed : 1500 RPM Dynamometer : Rope Brake type, Dia 300 mm. Water Circulation : Centrifugal Pump, CRI/Standard Make, Capacity 20 HP Three Phase. Control Panel Comprises of : L&T make, fully automatic star/delta Starter, Mains Indicator, MCB for overload protection. Instruction Manual : An ENGLISH instruction manual will be provided along with the Apparatus Tanks will be made of Stainless Steel.</p>	1	No.
4	<p>To draw the various characteristics of Centrifugal pump</p> <hr/> <p>Centrifugal Pump test Rig</p> <hr/> <p>UTILITIES REQUIRED: Water Suppl, Drain, Electricity 1 kW, 220V AC, Single Phase. Floor Area 2 x 1 m. TECHNICAL DETAILS : Pump : Kirloskar Make, Capacity 1 HP Speed 2800 RPM (max.), Head 12 m (max.) Medium Flow: Clear Water Drive: 1 HP DC Motor with Thyristor controlled DC drive for variable speed. Sump Tank: Capacity 110 Ltrs. Flow Measurement: Using Measuring Tank with Piezometer, Capacity 70 Ltrs. Stop watch: Electronic. Pressure Gauge : Bourdon type Control Panel Comprises of : RPM measurement: Digital RPM Indicator with Proximity sensor. Energy measurement: L&T make, Electronic Energy meter. Standard make On/Off Switch, Mains Indicator, etc. Instruction Manual: An ENGLISH instruction manual will be provided along With the Apparatus Tanks will be made of Stainless Steel. The whole set-up is well designed and arranged in a good quality painted structure.</p>	1	No.
	<hr/> <p>HYDRAULIC RAM TEST RIG</p>	1	No.

UTILITIES REQUIRED: Electricity supply: Single Phase, 220 V AC, 50 Hz, 5-15 amp combined socket with earth connection.
Water Supply (Initial Fill), Floor Drain required. Floor Area Required: 1.5 m x 0.75 m
TECHNICAL DETAILS: Ram: Supply Head 1.0 m, Delivery Head 4 m (Max.) Water Circulation: FHP Pump, Crompton make.
Sump Tank : Capacity 140 Ltrs. (approx.)
Overhead Tank : Capacity 50 Ltrs. (approx.)
Air Vessel: Suitable Capacity.
Flow Measurement : Using Measuring Tank & Electronic Stop Watch for waste water and for useful water
Pressure Gauge : Bourdon type. Control Panel Comprises of : Standard make On/Off Switch, Mains Indicator, etc. Instruction Manual : An ENGLISH instruction manual will be provided along with the Apparatus Tanks will be made of Stainless Steel. The whole set-up is well designed and arranged in a good quality painted structure.