FORM OF SHORT TENDER NOTICE

No. D2/6518/17/GECTCR Government Engineering College Thrissur

Sealed tenders are invited for the supply of the following stores for chemical engg. department:

Seperate list attached

Approximate cost Rs. 254000/-

The envelopes containing the tender should bear the superscription "Tender. No. **D2/136/17-18** due on **11/12/17**" and should be addressed to the Principal, Govt. Engg. College, Thrissur, Kerala..

Last date for receipt of tenders will be **11/12/17 2.00 pm** Late tenders will not be accepted. The tenders will be opened at Government Engineering College Thrissur on **12/12/2017 11.00 am** in the presence of such of the tenderers or their authorized representatives who may be present at that time. Intending tenderers may, on application to the Principal, Govt. Engg. College, Thrissur, obtain the requisite tender forms on which tenders should be submitted. Application for the tender form should be accompanied by a cash remittance of **Rs. 840/-** + postal charge which is the price fixed for a form/set of forms and which is not refundable under any circumstances. The tender forms are not transferable. Sale of tender forms will be closed at **11/12/2017 12.00 pm** Cheques, postage stamps, etc., will not be accepted towards the cost of forms, nor will the forms be sent per V.P.P.

Tenders should be accompanied by EMD of 1%, subject to a minimum of Rs. 1500/- , of the amount by DD drawn in favour of the Principal, Govt.Engineering College, Thrissur with an agreement in Kerala Stamp Paper worth Rs.200/-. Details can be had from the Govt.Engineering College Office working hours.

Dr. Jayanand. B

Principal

Place:Thrissur

Date: 7-11-2017

To

1. HOD CHEMICAL ENGG. DEPT

2. OC

Sl No.	Item	Specification	Quantity
1	Control Valve Characteristics	The experimental set up should consists of Pneumatic control valves of Quick opening, Linear and Equal % type. The Stainless Steel water tanks with pump are provided for continuous water circulation. The Rotameter is used for the flow measurement. The pressure at the valve inlet is measured with the help of manometer. The air regulator and pressure gauge is provided for regulating air supply. These units along with necessary piping and fitting are assembled in a painted MS Structure. With Air Compressor 1 HP 1. Control Valve Characteristics : Linear & Equal % &Quick Opening Type: Pneumatic 2.Water Tank : Material Stainless Steel, Capacity 25 liters 3. Water Circulation: FHP Pump Champion/Standard make. 4. Overhead Tank: Material Stainless Steel, Capacity 10 Liters. 5. Flow Measurement: By Rotameter. 6. Pressure Head measurement: By Single column manometer. 7.Pressure Regulator: 0-2 kg/cm² 8.Pressure Gauge: Bourdon type, 0-2 kg/cm² 9.Piping : Size ½"	1
2	P.I.D. CONTROLLER	The experimental set up is for the study of characteristics of a PID controller. It shall consist a stirred tank with a heater. Water shall be supplied to the tank from laboratory overhead tank by the user. The flow rate shall be adjusted by operating the needle valves provided on Rotameter. Stirred Tank: Material Stainless Steel, Capacity 2 L (approx.) Stirrer : Stainless Steel Impeller and shaft coupled with FHP Motor. Flow Measurement: By Rotameter (0-20 LPH) Stop Watch: Electronic Heater : Nichrome wire heater. **Control Panel comprises of:** PID controller : 0-199.9°C Temperature Sensor: RTD PT-100 type With standard make On/off switch, Mains Indicator etc.	1
		The transient response of second order system by using U Tube Manometer is to be studied. It shall consist of U tube manometer, Pressure sensor and Pressure regulator on a vertical frame. A foot pump with pressure tank fixed on a separate	

3	U-Tube Manometer	frame with pressure gauge provided, to generate a variable air pressure in conjunction with pressure regulator to the manometer. A USB based Data Acquisition system provided to study the second order system characteristics graphically on a PC, compatible with LabVIEW and MATLAB Softwares. U Tube manometer Range : (0-300)mmHg Pressure Sensor: (0-300)mmHg Body Material : MS with Powder coated Tube : Glass Mounting position : Vertical Pressure tank of 5 liters capacity with pressure gauge to display the pressure developed in the pressure tank. One foot pump provided to generate the pressure. Stop Watch: Electronic.	1

Dr. Jayanand. B

Principal