

PACKAGE-9

TENDER- 1/2017-18

BRANCH : INSTRUMENTATION AND CONTROL

S.No	Equipment Description	QUANTITY/UNIT REQUIRED	BID RATES OF EQUIPMENT PER UNIT(Rs.)	APPLICABLE RELEVANT TAXES PER UNIT(Rs.)	TOTAL COST OF EQUIPMENT PER UNIT(Rs.)
NAME OF LAB: PROCESS CONTROL LAB					
1	To study the working of DP cell and plot the input and output characteristics :Differential pressure Transmitter Setup- Complete setup having following specification. Dp transmitter. I/p pressure regulator for (0-2000) mm of WC pressure with digital I/p indicator. O/p 4-20 mA with digital indicator. Suitable power supply for above. Built in as small aircompressure or any pressure source for I/P. User manual with experimental details.	4			
2	To calibrate the given PI pneumatic controller by varying proportional percentage & integral time :PID pneumatic Controller setup-The setup should having following specification. Pneumatic PID controller. Air Filter & regulator with suitable gauge for I/P & O/P pressure measurement. Circular chart pressure recorder to record variation in O/P pressure with variable speed of chart. Diaphragm control valve 1/2" size. Setup should have provision to plot the characteristic of P, PI, PD, PID action. Two set of manual showing procedure to do experiments on it.	3			
3	Distributed Control system trainer: Complete setup to perform experiments related to control of level, I pressure, flow & temperature with RS 232/ RS 485 converter, At least 8 input/ 8 output channels (analog/ digital) with PC/PLC interface, suitable SCADA application Software, Concept of DCS by making a typical process. User manual with experiments.	2			



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