# Rajiv Gandhi Institute of Technology, Kottayam

No. D3/6422/21/RIT

Dated: 14.04.2022

## TENDER SCHEDULE

Superscription	: Tender No: 04/21-22/RIT Supply of items to Measurements Lab , Total estimated cost ₹ 1,30,050/-
Last date and time receipt of tender	: 27/05/2022, 1 pm
Date and time of opening of tender	: 27/05/2022, 3 pm
Last date and time of sale of tender form	: 26/05/2022, 3 pm
Date upto which the rates are to be firm	: 31/05/2023
Cost of tender form	: Original ₹ 708/- (including GST- 108/-) Duplicate ₹ 354/- (including GST) By Post ₹ 743/- (708+35)
Address of the Officer from whom Tender Forms are to be obtained to whom tenders are to be send	: THE PRINCIPAL, RAJIV GANDHI INSTITUTE OF TECHNOLOGY, KOTTAYAM, VELLOOR P. O, PAMPADY , KERALA, PIN - 686501

### List of Items Required

Details of items		Quantity	
1	Portable Kelvin Double Bridge	1	
2	3 phase loading rheostat Three Phase 5KW loading Rheostat	1	
3	Anderson bridge for Self Inductance	1	
4	Inductive Load 3 Phase 15A	1	
5	3 Phase Autotransformer 10A, 440V 0/P : 0- 470V	1	
6	1 Phase Autotransformer 6A, 240V	1	
7	static energy meter single phase	1	
8	static energy meter three phase	1	
9	Single phase Wattmeter LPF 250V/500, 10A	1	
10	Single phase Wattmeter UPF 250V/500, 10A	1	

PRINCIPAL

#### SI.No Item with specification Quantity **Portable Kelvin Double Bridge** A low resistance bridge to measure resistances in the range of 0.0005 to 110 on 5 ranges. In these bridges there are ten coils of 0.1 ohms each arranged on a rotary switch. In series with these ten coils, is a circular slide wire of 100 divisions. Total resistance a 0.1 Ohms, 1 1 each division being equal to 0.0010h range switch furnishes 5 range factors of x = 00, x10, xl, x0.1 and 0.01. At balance the sum of main dial and slide wire leading multiplied by the range gives the value of unknown resistance. A sensitive low resistance MR100 galvanometer and a mains operated power supply of 4V, 2Ampere is built in. Complete with leads. 3 phase loading rheostat Three Phase 5KW loading Rheostat Loading Rheostat 3 ph 2 KW Resistors assembled inside the M.S. angle iron frame and covered with expanded metal on all the 2 1 No sides for free cross ventilation and efficient cooling. Wheels provided for easy handling of equipment. Heavy duty single pole/ 3pole ON/ OFF rotary switches used for controlling the main loading steps Anderson bridge for Self Inductance This bridge is very common for the measurement of self inductance in terms of standard capacitance and non inductive resistances. It consists of three non inductive resistances of 1000 Ohms. A variable non inductive resistance in the form of three decades of 10. xl, 10 x 10, 10 x 100 Ohms. This resistance also includes the resistance of self inductance L which is also 3 1 connected in the same arm. A non inductance variable resistance of three decades of 10 x10, 10 x 100, 10 x 1000 Ohms and standard capacitance in the form of four values of 0.005, 0.01, 0.02, 0.05 mfd selected by a selector switch. Accessories supplied a) 1 KHz sine wave oscillator. b) Sensitive pair of Headphones. Inductive Load 3 Phase 15A Make : Variable Inductor or Inductive Load- 3 phase variable chock coil mounted on massive 1" thick teak wood platform and All the two terminals are brought out. The wood base acts as a 1 4 resilient shock absorber Open type. Approx. Size: 450 x 500 x

## List of items to be purchased

	600mm	
5	<b>3 Phase Autotransformer 10A, 440V 0/P : 0-470V</b> 0/P: 0 - 470V. Continuously variable auto transformers having a single layer copper winding on a torrodial core of high grade cold rolled grain oriented silicon steel. On one face of the copper winding along the periphery a special durable contact surface of silver coating is made, on which the carbon brush slides (over the silver surface) smoothly. Any desired voltage within the maximum range can be obtained by adjusting the position of the brush by rotating the control knob. The calibrated dial read approximately the output voltage at no load, when the input is at its rated value	1
6	1 Phase Autotransformer 6A, 240V Make: Variac Industries 0/P: 0 - 270V, Continuously variable autotransformers having a single layer copper winding on a torrodial core of high grade cold rolled grain oriented Silicon steel. On one face of the copper winding along the periphery a special durable contact surface of silver coating is made, on which the carbon brush slides (over the silver surface) smoothly. Any desired voltage within the maximum range can be obtained by adjusting the position of the brush by rotating the control knob. The calibrated dial read approximately the output voltage at no load, when the input is at its rated value.	1
7	static energy meter single phase	1
8	static energy meter three phase	1
9	Single phase Wattmeter LPF 250V/500, 10A	1
10	Single phase Wattmeter UPF 250V/500, 10A	1

Dr. Sathishkumar C Principal