

College of Applied Science  
Kuthuparamba,  
Kottayam Malabar (PO),Kannur(Dist.),  
Kerala - 670643

Tender No.C/ 262/2018/CASK

dated 15.11.2018

**TENDER NOTICE**

Sealed Tenders are invited for the supply of various Electronic Equipments of College of Applied Science, Kuthuparamba

Cost of Tender Form	: Rs.500 + 12% GST
Last Date of Sale of Tender forms	: 14-12-2018, 12.00PM
Last Date of Receipt of Tender Form	: 14-12-2018, 1PM
Date and Time of Opening Tender Forms	: 14-12-2018, 2.30PM
EMD	: 1 % of quoted amount
GST No.	: 32AAAAI0624DIZJ

Sd/-

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## COLLEGE OF APPLIED SCIENCE, KUTHUPARAMBA

### Statement for the purchase of Electronic Lab Equipments

SL No.	Particulars	Required
<b>1</b>	<p style="text-align: center;"><b>CRO</b></p> <p>Cathode Ray Oscilloscope with CE Mark                      20 Mhz Oscilloscop with 1 : 10 AttEnUation Probe .                      Sensitivity: 5mV~5V/DIV, 10 steps in 125 sequence Accuracy: 3% ≤                      DC balance shift: 5mV~5V/DIV: ±0.5DIV                      Sweep time: 0.2us~0.5s/DIV, 20 steps in 125 sequence                      Vernier sensitivity: 1/2.5 of panel indicated value ≤                      Bandwidth: DC (AC 10Hz)~30MHz                      AC coupling: 1 MHz) Output Amplifier Protection : Protected against short circuit and + 15V overload.</p>	<b>4</b>
<b>2</b>	<p><b>FUNCTION GENERATOR 2MHZ</b></p> <p>(DDS BASED FG WITH STANDARD FUNCTIONS &amp; MODULATION AM/FM/PWM/SWEEP)                      Output waveforms : Sine, Square, Triangle and Pulse&amp; TTL                      Output : Socket-BNC, Amplitude – 20 V p-p with 50 ohms impedance                      Frequency Range : 0.1 Hz to 2MHz (SINE,SQR and PULSE) ;0.1 Hz to 1 MHz (TRI,)                      Selected in7 steps. Variable Control                      Display : LCD, micro controlled- menu Keys with freq and amplitude display                      Modulation : AM, FM, PWM and SWEEP( DC TO 20 KHz)-EXTERNAL                      Mod input : 5Vpp(maximum)                      DC Offset : +/- 5V continuously adjustable, attenuated by step Attenuator.                      Attenuation : 0 db, 20 db, 40 db, 60 db.                      Level Flatness : 0.2dB from 10 Hz to 1MHz                      Stability : + 2pm aging +PPM/year amplidute                      Sine Wave Distortion : 0.5% maximum at 20Vp-p 0.1% maximum at 2V p-p (FO= 20 KHz)                      Square/Pulse Rise &amp;Fall Time : Less than 50nS at full rated Output.                      Pulse Duty Cycle Variation : 0% to 100% (10Hz – 1 MHz) 25% to 75% (&gt; 1 MHz)                      Minimum pulse width : 75 ns                      Triangle Linearity Error : 0.25 (FO = KHz, 5% to 95%)                      Output Amplifier Protection : Protected against short circuit and + 15V overload.                      Power Requirement : 230 V AC + 10%, 50Hz, 10VA.</p> <p>DDS BASED FUNCTION GENERATOR – 0.1HZ to 2MHZ (ST FG –2000)</p>	<b>3</b>

3	<p style="text-align: center;"><b>+10V/1A</b></p> <p>LOW VOLTAGE DC REGULATED FIXED DUAL output power supply, with protection against short circuit and continuous overloads WITH OUT METERS DC OUTPUT +/10V/1Amp</p>	3
4	<p style="text-align: center;"><b>8085LED Kit</b></p> <p>MICROPROCESSOR 8085 LED TRAINER with CE Mark Microprocessor Trainer 8K EPROM/8K RAM(Expandable) LED 28 KEYS KEY BOARD 6DIGIT SEVEN SEGMENT DISPLAY 16 BIT TIMER/COUNTER using 8253 24 I/O LINES USING 8255&amp;26 PIN FRC CONNECTOR - 8279 ,50 PIN FRC BUS CONNECTOR RS- 232C through SID/SOD lines using software WITH PC INTERFACE</p>	3
5	<p style="text-align: center;"><b>DMM</b></p> <p>Features: 3½ Digital Multimeter• No Power-OFF under natural operation• Full protection in All Ranges• NCV Tes• Technical Data : Basic Functions Range Basic Accuracy DC Voltage 200mV/2V/20V/200V/1000V ±(0.5% + 4) AC Voltage 200mV/2V/20V/200V/750V ±(0.8% + 5) DC Current 200uA/2mA/20mA/20mA/2A/20A ±(1.0% + 5) AC Current 200uA/2mA/20mA/20mA/2A/20A ±(1.5% + 5) ±(0.8% + 1)ΩM02/ΩM2/Ωκ002/Ωκ02/Ωκ2/ΩResistance 200 Temperature -40 ~ 1000 C / 0 ~ 1832 F ±(1.0% + 5) Special Function : } NCV } Diode test Ω Input impedance 10M} Transistor Testing Continuity Buzzer Approx. &lt; Sampling Rate 3 times per secondΩ +10Ω30 Low Battery Display Approx. &lt; 7.5V AC Frequency Response 40-400Hz Auto Power OFF Approx. 30 min. Power 9V (6F22) Standard Accessories : Test Leads, Holster, Temp. Probe, Manual</p>	5
6	<p><b>Digital Trainer Kit</b></p> <p>10 TTL compatible logic input toggle switches with spring termination for wiring. ☑ 10 LEDs with drivers and equipped with spring termination for displaying the output. ☑ Four 7-segment displays, each with BCD to 7-segment decoder IC and spring termination at the BCD input. ☑ Monopulser with a push button switch to produce positive and negative pulse and each with spring termination. ☑ Clock generator with fixed clock frequencies of 1Hz, 10Hz, 100Hz, 1 kHz, 10 kHz, and 1 MHz, each with spring terminations ☑ Solder less bread board with 1680 tie points fixed to the kit. ☑ Two numbers of 20 pin ZIF sockets. ☑ Availability of built in power supplies on the kit: +5V -2A, +/- 12V/250mA ☑ The kit is mounted on a sloping ,elegant, powder coated metal cabinet. Manual and sufficient patch cords are provided. ☑ Spring type sockets providing multiple interconnection on socket using single stranded patch cords</p>	9
7	<p><b>LCD MONITOR</b></p> <p>Display Type :19 inches TFT LCD 48.3 cm Dimensions (include base) Height Depth Width 16.4 inches 7.56 inches 16.3 inches 41.6 cm 19.2 cm 41.4 cm</p>	1

	<p>Maximum Graphic Resolution 1280 × 1024 (75 Hz) analog input Optimum Graphic Resolution 1280 x 1024 (60Hz) analog input Text Mode 720 × 400</p>	
<b>8</b>	<p align="center"><b>ADC INTERFACE BOARD</b> ADC INTERFACE BOARD with CE Mark for 8051 LCD kit</p>	<b>2</b>
<b>9</b>	<p align="center">ADC Interface Board <b>ADC INTERFACE BOARD</b> with CE Mark for PIC16F 877A</p>	<b>2</b>
<b>10</b>	<p align="center"><b>DAC INTERFACE BOARD</b> for 8051 LCD kit</p>	<b>2</b>
<b>11</b>	<p align="center"><b>DAC INTERFACE BOARD</b> for PIC16F 877A</p>	<b>2</b>
<b>12</b>	<p align="center"><b>STEPPER MOTOR INTERFACE BOARD</b></p>	<b>2</b>
<b>13</b>	<p align="center"><b>PIC 16F 877A TRAINER KIT</b> PIC MICROCONTROLLER 16F877A-ST-PIC-02 8 Digital IO-LEDS/SWITCHES -4X4 matrix keypad Character based LCD(16X2) ☑ RS232 Port I2C Peripheral –RTC -7 Segment Displays ICD2 Connector for Direct programming ☑ 10-Bit on Chip ADC -High-Performance RISC CPU-PIC16F877 ☑ Operating Speed:DC-20Mhz Clock input DC-200nS instruction Cycle ☑ 10bit,upto 8 channel ADC - Timer0:8bit/16bit timer/Counter ☑ SSP with SPI(master Mode) and I2C (master/Slave) USART/SCI ☑ ICSP via two pins -Single supply 5V ICSP ☑ LM35 temperature sensor -H bridge driver is to interface stepper motor &amp; DC motor ☑ MOC7811 sensor to measure speed - DC motor</p>	<b>3</b>
<b>14</b>	<p align="center"><b>DC interfacing Motor +12V with connecting cables</b></p>	<b>2</b>
<b>15</b>	<p><b>LCD PROJECTOR</b> Light output : 3,300 lm Resolution : <b>800x600</b> Contrast : 15,000 : 1 Projector type: <b>LCD</b> With Remote control Digital zoom : 1.35 x</p>	<b>1</b>

Sd/-

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