

GOVERNMENT ENGINEERING COLLEGE, KOZHIKODE

Details of Instruments required to be purchased for Physics Lab, APPLIED SCIENCE DEPARTMENT for the year 2017-18

SL.NO	ITEM	SPECIFICATION	QUANTITY
1	CATHODE RAY OSCILLOSCOPE	<p style="text-align: center;">(1.1) VERTICAL DEFLECTION(Y)</p> <p>Deflection coefficient (CH1 & CH2) : 1mV/div to 20 V/div.5mV/div to 20V/div in 12 calibrated steps in 1-2.5 sequence</p> <p>x5 Magnification increases the sensitivity to 1 mV/div</p> <p>Accuracy: x1: ±3%, x5: ±5%.</p> <p>Variable: 1/2.5times uncalibrated continuously variable control extends the deflection coefficient approx. to 50 V/div</p> <p>Bandwidth: x1:DC to 20 MHz(-3dB), dc coupled. : 10 Hz to 20 MHz(-3 dB), ac coupled.</p> <p>x5: DC to 5 MHz(dc coupled) : 10 Hz to 5 MHz (ac coupled)</p> <p>Rise Time: 18 ns or less</p> <p>Display Modes: CH1 ,CH2, DUAL(CH1,CH2 ALT/CHOP),Algebraic ADD and SUBTRACT, CH2 INVT & X-Y(CH1 as X , CH2 as Y)</p> <p>Input Impedance: 1Mohms//25pF approx.</p> <p>Maximum input voltage: 400 Volts (dc + peak ac)</p> <p>Internal trigger signal: CH1,CH2 or Alternate</p> <p style="text-align: center;">(1.2) TRIGGER SIGNAL OUTPUT</p> <p>Output Voltage: Minimum 100 mV for 1 div of CH1/CH2 Trigger signal</p>	1

(1.3) TIME BASE	
Sweep speed :	20 calibrated steps . 0.1 μ s/div to 0.2 s/div in 1,2 & 5 sequence
Accuracy:	3%
Sweep Magnifier:	x10 magnification increases the fastest sweep upto 10 ns/div.
Accuracy:	\pm 8%
Variable:	Uncalibrated continuously variable control between steps ,extends slowest sweep speed to 0.5 s/div(approx.).
(1.4) TRIGGER SYSTEM	
Sweep mode :	AUTO,NORM,SINGLE.
Source:	CH1,CH2,ALT,LINE,EXT.
Slope:	Positive or Negative
Coupling :	AC/ DC Coupling
Trigger sensitivity	
Internal :	Auto : 1.0 div - 20 Hz to 20 MHz
	Normal : 1.0 div - 10 Hz to 20 MHz
	Lock : 2.0 div - 50 Hz to 10 MHz
	Alt : \geq 3 div - 50 Hz to 20 MHz
External :	Auto : 0.3 V p-p - 20 Hz to 20 MHz
	Normal : 0.3 V p-p - 10 Hz to 20 MHz
	Lock : 0.3 V 50 Hz t o 10 MHz
(1.5) HORIZONTAL DEFLECTION	
Deflection coefficient :	same as CH1
Band width :	DC - 1MHz (-3dB)
Input Impedance:	1Mohms//25pF approx.
Phase Difference:	\leq 3 $^{\circ}$ (DC -50 KHz)

