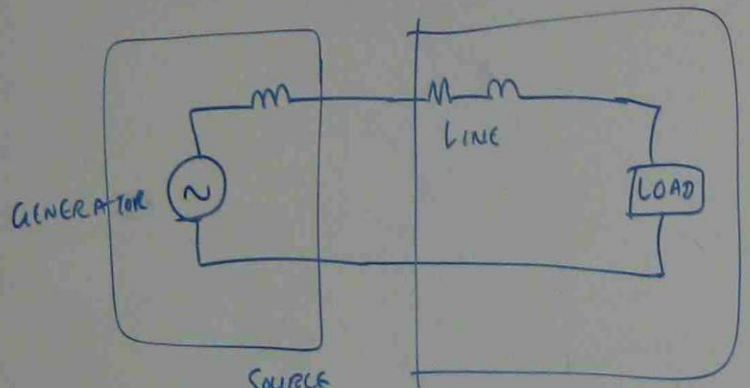
MAXIMUM POWER TRANSFER THEORM

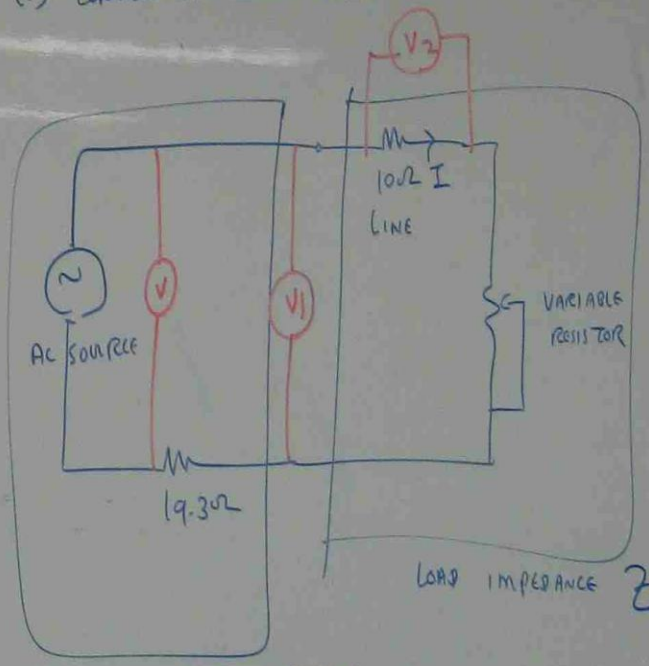
THEORM

MAXIMUM POWER IS TRANSFERRED FROM THE SOURCE WHEN SOURCE IMPEDANCE IS EQUAL TO LINE + LOAD IMPEDANCE



SOURCE IMPEDANCE = LOAD IMPEDANCE ⟶ MAXIMUM POWER IS TRANSFERRED.

(1) CONNECT THE GIVEN CIRCUIT



$Z_S = 19.3\Omega$

SWITCH, ADJUST THE VARIABLE RESISTOR

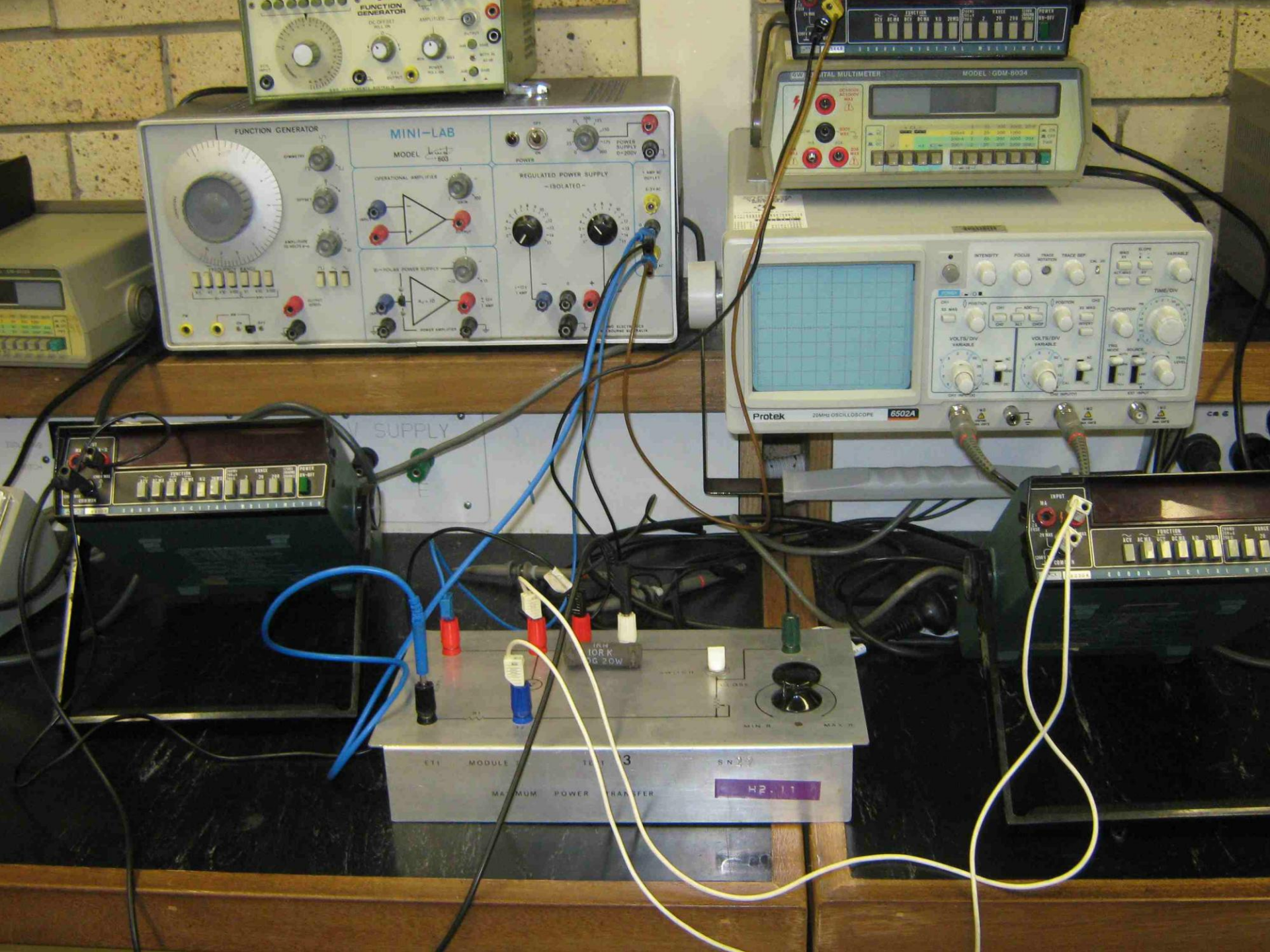
NOTE V, V_1, V_2

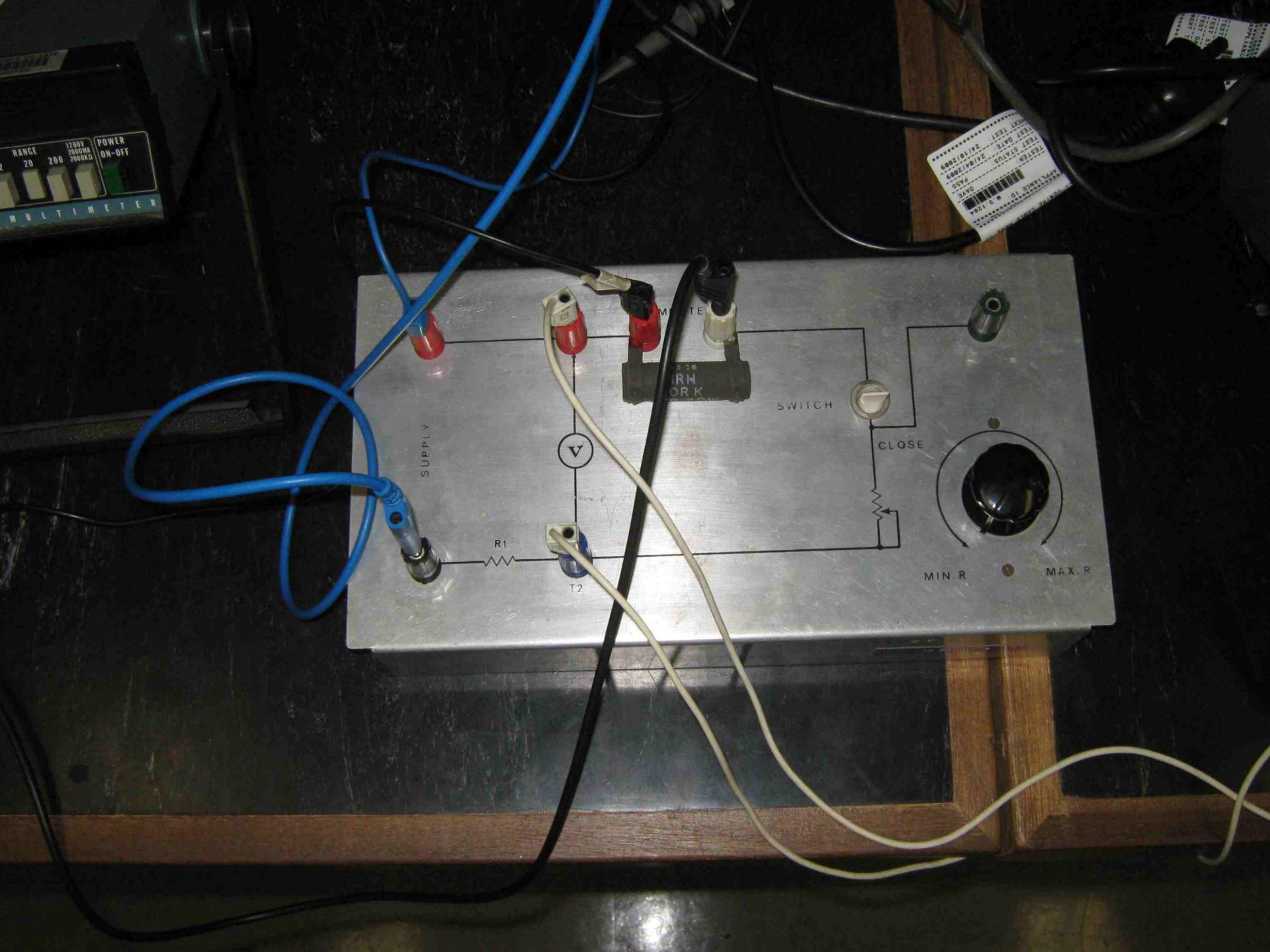
FILL IN TABLE

SOURCE	V_1	V_2	$I = \frac{V_2}{10\Omega}$	POWER = $V_1 \times I$
6.2	2.4			-
	3.6			-
	4.2			-
	4.7			
	5.5			
	6			
	6.2			

- WHEN POWER REACHES THE MAXIMUM POINT, MEASURE, LINE + LOAD IMPEDANCE (Z_L) AND THEN COMPARE WITH SOURCE RESISTANCE

Z_L & Z_S COMPARISON


FUNCTION GENERATOR
MINI-LAB
MODEL 603
REGULATED POWER SUPPLY
~ISOLATED~
Protek
20MHz OSCILLOSCOPE
6502A
MODEL GDM-8034
H2.11


RANGE
20
200
1200V
2000Ma
2000KΩ
POWER
ON-OFF
MULTIMETER
SUPPLY
V
R1
T2
SWITCH
CLOSE
MIN R
MAX. R