Close the switch. Measure and record the current I_o.

I_o = ... mA (1 mark)

Dismantle the set up.

ii) Set up the apparatus as shown in the circuit diagram in figure 3.

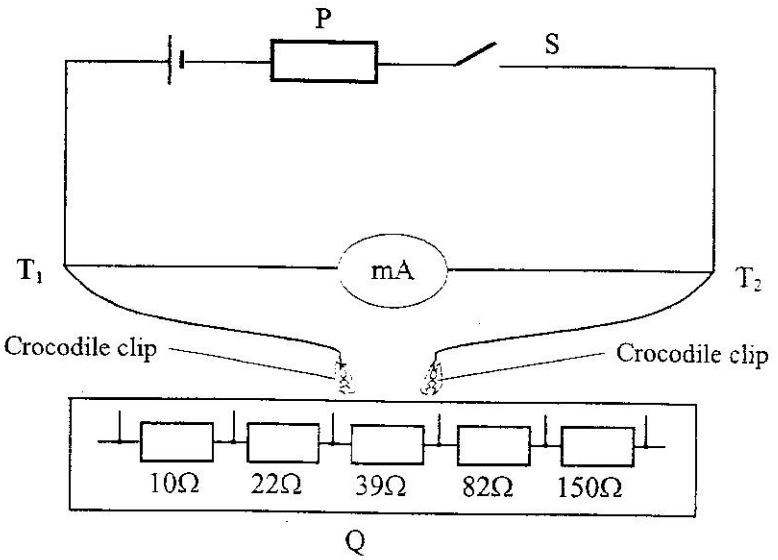

Figure 3

Each of the connecting wires from points T_1 and T_2 should have a crocodile clip at one end.

iii) Connect the crocodile clips across the 10 Ω resistor on **Q**. Close the switch and record in Table 2 the current I through the milliammeter. Open the switch.

iv) Repeat the procedure in (c) for the other values of resistance R shown in table 2 **(some values of R may be obtained by combining suitable resistors on Q).** Complete the table.

Table 2

R (Ω)	10	22	32	39	61	71	82	121	150
I (mA)									
I (A)									

(7 marks)