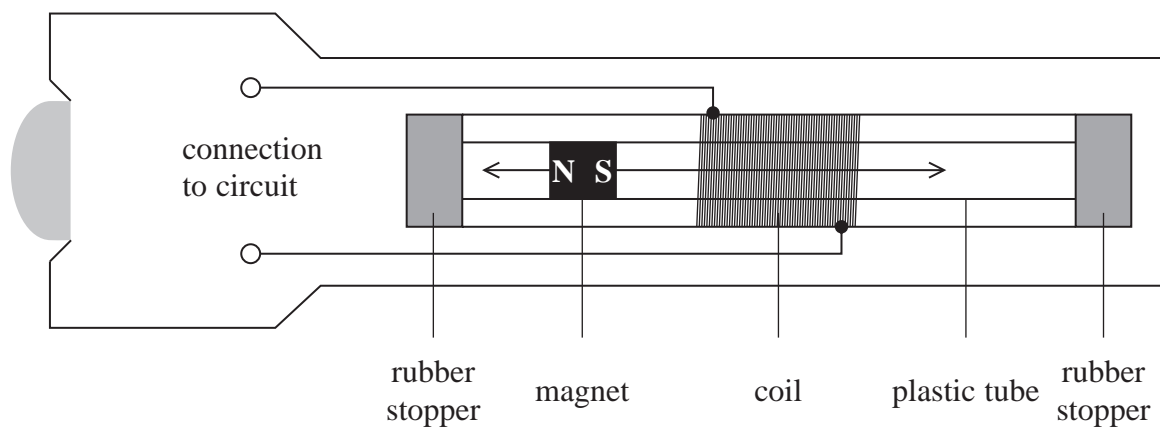
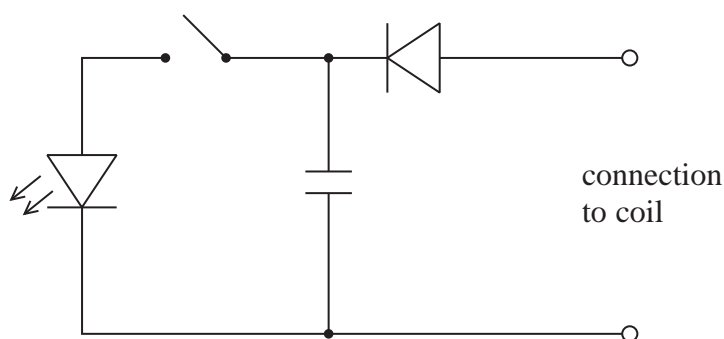


5

The diagram shows a 'shaker torch'. When the torch is shaken, a strong magnet moves forwards and backwards through a copper coil, powering a light-emitting diode (LED).



Each time the magnet moves through the coil a current pulse is generated. The coil is connected to a capacitor via a diode, as shown.



Once the torch has been shaken for a few minutes the switch is closed and the LED lights for a short while.

Explain how the shaker torch is able to light the LED.