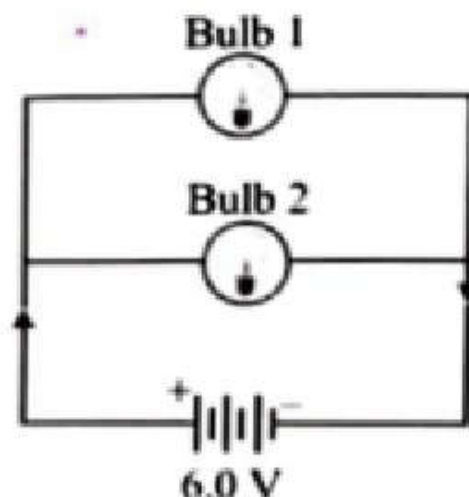


Q 09

A 6.0 volt battery is connected to two light bulbs as shown in figure. Light bulb 1 has resistance 3 ohm while light bulb 2 has resistance 6 ohm. Battery has negligible internal resistance. Which bulb will glow brighter?

[Online May 19, 2012]



- (a) Bulb 1 will glow more first and then its brightness will become less than bulb 2
- (b) Bulb 1
- (c) Bulb 2
- (d) Both glow equally

(b) Total resistance = $\frac{6 \times 3}{6 + 3} = 2\Omega$

Current in circuit = $\frac{6}{2} = 3A$

Therefore current through bulb 1 is 2A and bulb 2 is 1A. So bulb 1 will glow more