

Electricity

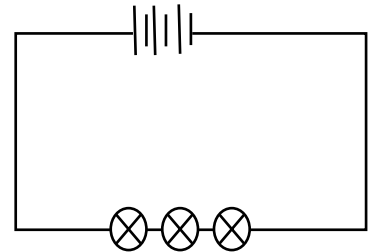
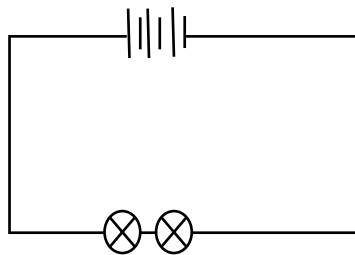
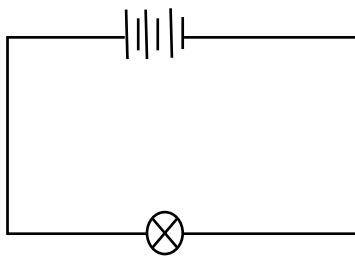
Questions

QUESTION 1:

1.1 What is the relation between the brightness of the light bulbs and the amount of light bulbs connected in series?

1.2 The light bulbs will all be equally bright if they are connected in series (here you write down what you think will happen)

1.3



1.4 Battery of

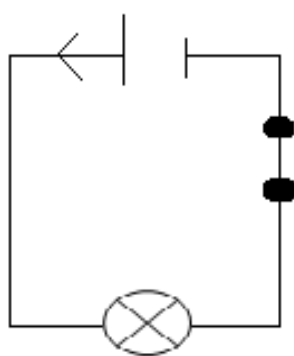
4.5V, Amount of light bulbs

1.5 Brightness of light bulbs

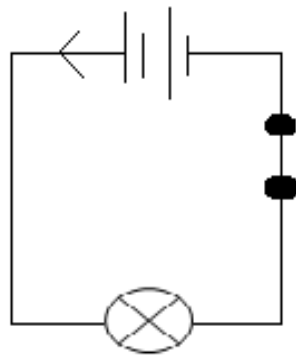
1.6 The more light bulbs in series, the dimmer the light bulbs. In series the 1st light bulb is also brighter, the 2nd one dimmer and the 3rd one the dimmest.

1.7 $V = IR$. The higher the resistance, the smaller the current.

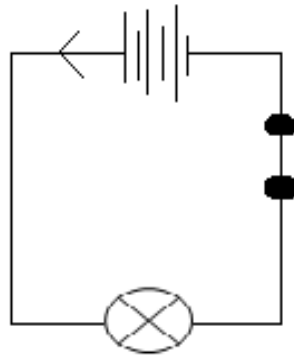
QUESTION 2:



A



B

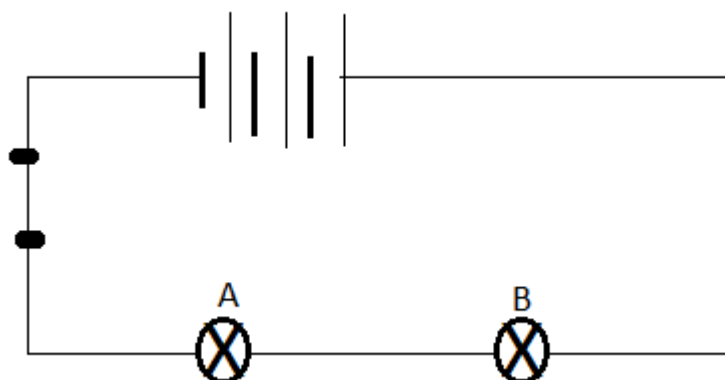


C

2.1.1 Circuit C's light bulbs will burn the brightest, because the battery is the strength.

2.1.2 The resistance in circuits A and C is the same.

2.2



2.2.1 Light bulb A will not burn, because if light bulb B blows, the current is interrupted and no current will be in the circuit.

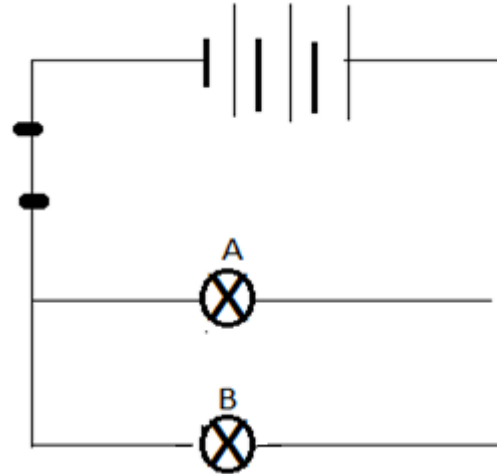
2.2.2 The resistance will now be half of the original circuit's resistance. Thus, the current strength will double and light bulb B will be twice as bright as when light bulbs A and B are in the circuit.

2.3

2.3.1 Light bulbs A and B are connected in parallel.

2.3.2 The more light bulbs connected in parallel, the less the resistance will be. They will all burn equally bright and brighter than 2 light bulbs in parallel.

2.3.3 Total current strength increases and light bulbs burn brighter.



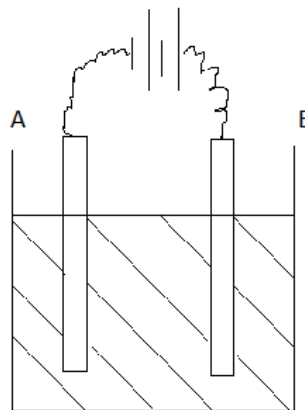
Effect of Electricity:

QUESTION 1:

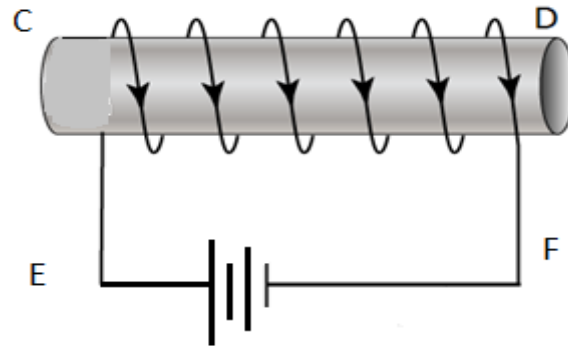
1.1 Which effect of electricity is applied in each of the following cases?

- A. heat effect
- B. electrical effect
- C. mechanical effect

1.2 Study the following sketch:



- A. Electrolysis
- B. Carbon
- C. A - cathode, carbon strikes down on cathode
B - anode, chlorine gas is formed at anode.
- D. A - cathode
B- anode



1.3

- A. E to F
- B. C is the north pole and D is the south pole.
- C. Magnetic field lines pass from north to south and are determined by the direction of flow of the electrons.