ANSWERS

Quiz 2 Electric Circuit Name:_____ Class: _____ Date: _____

Mark _____ / 33

1. Name the following electrical circuit components.

a  power source / battery

b  open switch

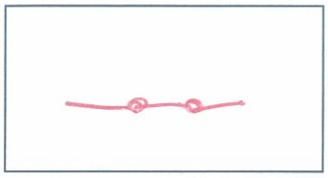
c  light globe

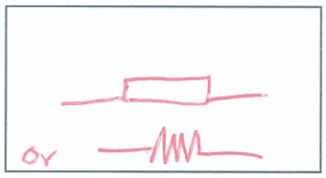
= 1 each

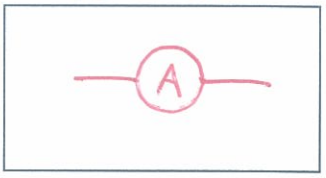
(3)

2. Draw the symbols for the following electrical components.

(a) closed switch (b) resistor (c) ammeter (3)







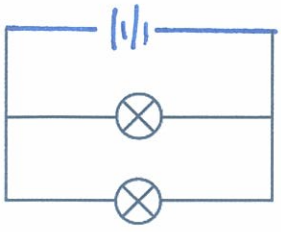
= 1 each

3. Write the unit and unit symbol used to measure:

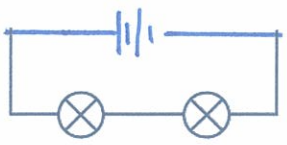
	Unit	Symbol	
a current	amperes	A / mA	(1)
b voltage	volts	V	(1)
c resistance	ohms	Ω	(1)

(3)

4. Define each the following sets of light globes as in either <u>series</u> or in <u>parallel circuit.</u>

a 

parallel circuit = 1

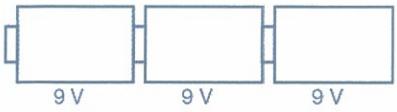
b 

series circuit = 1

(2)

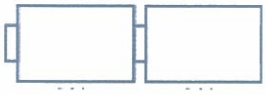
5. Calculate the supply voltage of the battery arrangement for each set of torch batteries.

5a.



Supply Voltage 27 V = 1mk

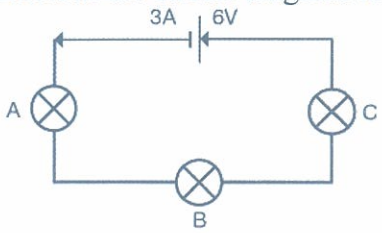
5b.



supply voltage 3 V = 1mk.

(2)

Look at the circuit diagram to answer Q 6, Q 7 & Q8



6. All globes in the circuit above were working correctly when globe A broke and stopped glowing. Which of the globes would also have stopped glowing because of this?

A all globes
B only globe C
C only globe B
D no other globes stop glowing

(1)

7. Globe A was then replaced so that all globes in the circuit above were once again working. Soon after, globe C broke and stopped glowing. Which of the other globes would also stop glowing because of this?

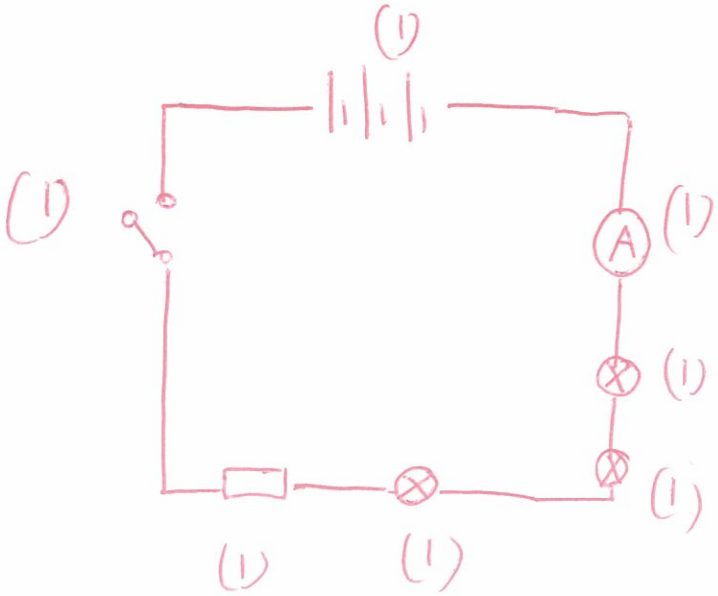
A all globes
B only globe C
C only globe A
D only globe B

(1)

8. The circuit is set up as a series circuit. (1)

9. In the space below : Draw a circuit diagram

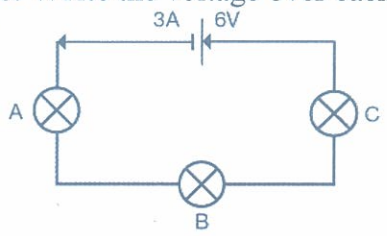
- **a battery of 3 cells, a switch, an ammeter, a single resistor, and 3 globes in series to each other** (Hint: Use ruler & pencil, cross off each label as you use it!)



(7)

10. Write the voltage over each of the light globes in the circuits below.

a



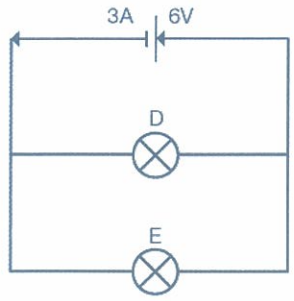
Globe A 2V

Globe B 2V

Globe C 2V

(3)

b

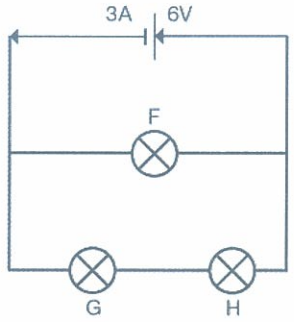


Globe D 6V

Globe E 6V

(2)

c



Globe F 6V

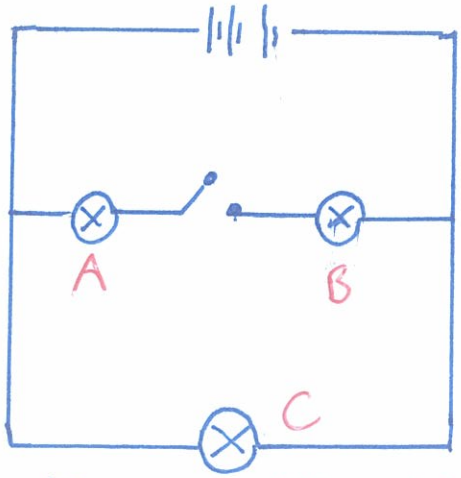
Globe G 3V

Globe H 3V

(3)

11. Look at this circuit

Describe what will occur when the switch is closed / and switch open



Switch closed: All globes will light up (1)

Switch open: Only globe C will light up (1) (2)