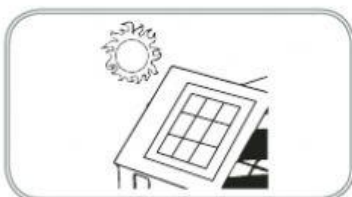


Electricity

PART A

7.1 Sources of Electrical Energy

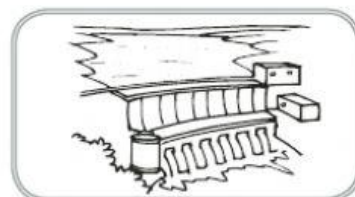
A State the sources of electrical energy below.



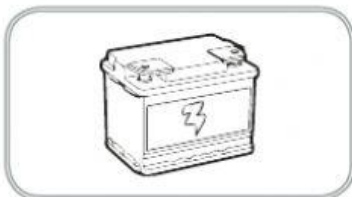
(a)



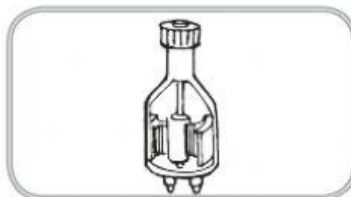
(b)



(c)



(d)

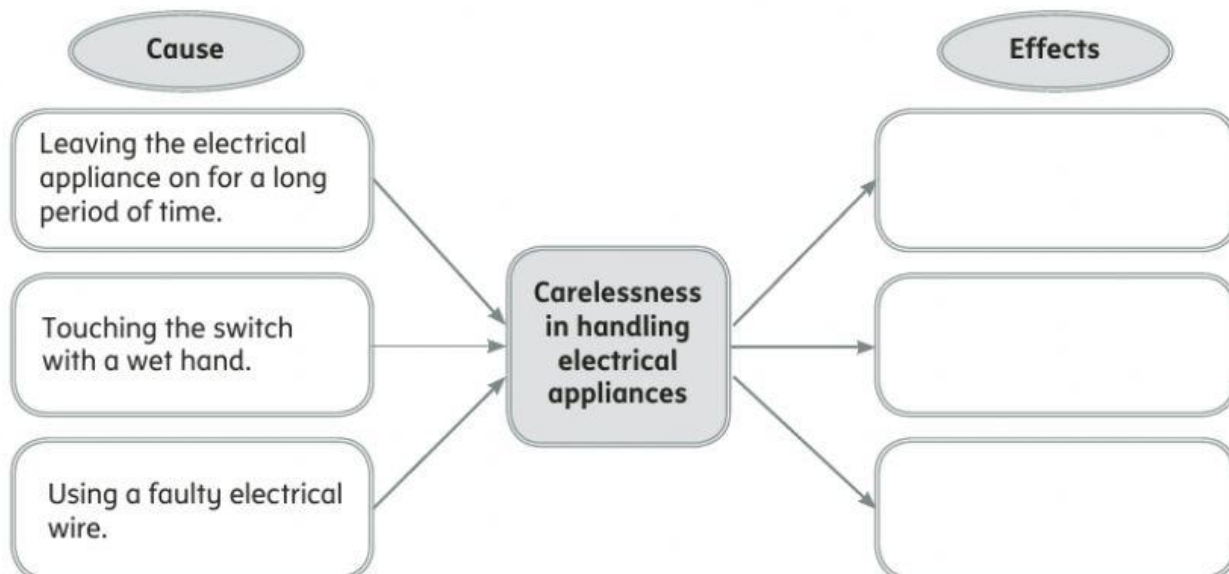


(e)



(f)

B Complete the multi-flow map below showing some careless actions involved in handling electrical appliances.



PART B

13

Instruction: Choose the correct answer from A, B, C or D.

7.1 Sources of Electrical Energy

1 Which of the following shows a source of electrical energy?

A



C



B



D



2 Diagram 1 shows a bicycle.

HOTS

Diagram 1

Kamaliah finds it hard to cycle at night because of the dark surroundings.

How can you help Kamaliah?

- A Install a dynamo and a light bulb on the bicycle
- B Install batteries on the bicycle
- C Supply light
- D Supply electrical energy to the bicycle

3 Diagram 2 shows a hybrid car.



Diagram 2

What is the source of electrical energy used to power the car?

- A Battery
- B Accumulator
- C Generator
- D Solar cells

4 Diagram 3 shows a part of the car engine.

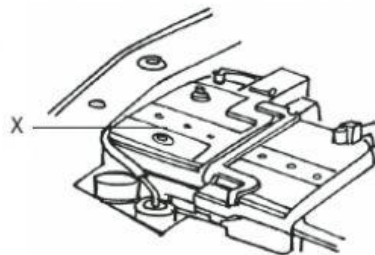


Diagram 3

What is the function of the object labelled X in Diagram 3?

- A Moving the car
- B Supplying kinetic energy to the car
- C Increasing the functioning capacity of the car
- D Supplying electrical energy to the car

7.2 Complete Electrical Circuit

5 Diagram 4 shows the components of an electrical circuit.

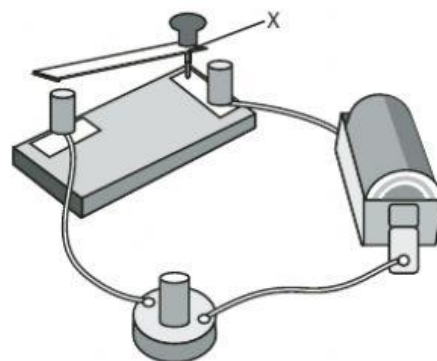


Diagram 4

What is the component labelled X?

- A Switch
- B Battery
- C Light bulb
- D Connecting wire

6 Diagram 5 shows a parallel circuit.

HOTS

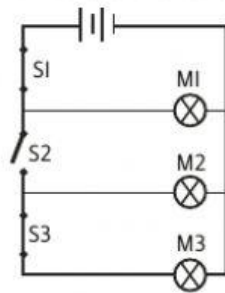


Diagram 5

Which of the following light bulbs will light up?

- A Light bulb M1
- B Light bulbs M1 and M2
- C Light bulbs M1 and M3
- D Light bulbs M1, M2 and M3

7 Diagram 6 shows a series circuit which has similar light bulbs.

HOTS

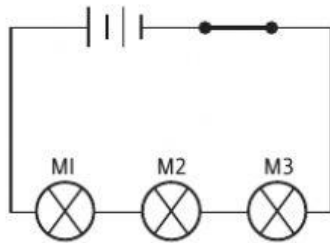


Diagram 6

Predict the brightness of the light bulbs in Diagram 6.

	M1	M2	M3
A	Bright	Dim	Dimmer
B	Bright	Dim	Do not light up
C	Bright	Bright	Bright
D	Dimmer	Dim	Bright

8 Diagram 7 shows an electrical circuit.

HOTS

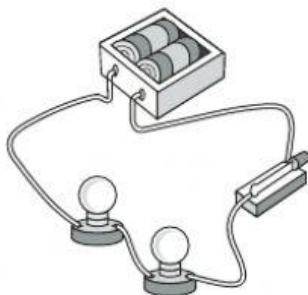
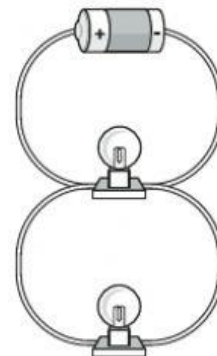


Diagram 7

Why do the light bulbs in Diagram 7 **not** light up?

- A Open switch
- B The wires are not connected completely
- C The batteries are placed inversely
- D The components of the circuit are not complete

9 Diagram 8 shows two different types of electrical circuits.



Circuit P



Circuit Q

Diagram 8

In which circuit will the light bulbs be brighter?

- A Light bulbs in circuit P
- B Light bulbs in circuit Q
- C All the light bulbs have the same brightness
- D One light bulb each in circuits P and Q

10

HOTS

Fuziwani follows her grandfather to the orchard to collect durians at night. She realises that the brightness of her torch is dimmer than her grandfather's.

Based on the situation above, why is there a difference in the brightness of the torches carried by Fuziwani and her grandfather?

- A Fuziwani's torch is broken.
- B The energy in Fuziwani's torch batteries is low.
- C Fuziwani's torch is smaller than her grandfather's.