



Grade 8

Science

Unit : 10 - Electricity

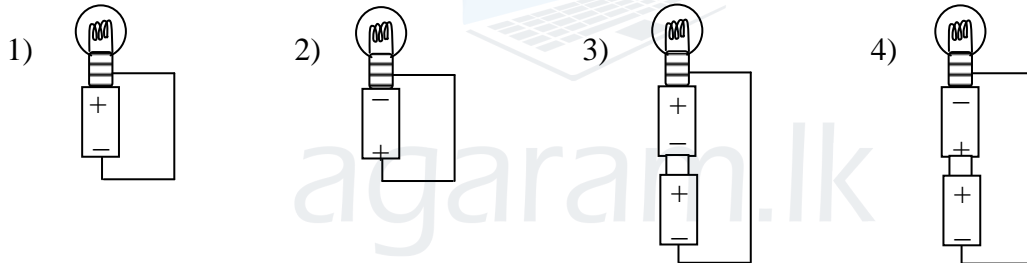
part I

- Underline the most suitable answer.

(1) An electric current means.

- 1) The path of positive charges.
- 2) flow electric charges.
- 3) The way of connecting dry cells.
- 4) The way of connecting bulbs.

(2) In which instance that the highest brightness of the built can be observed?



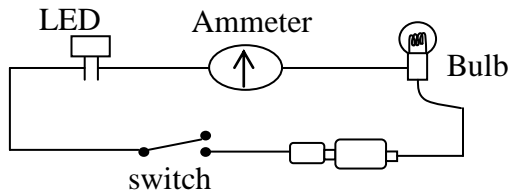
(3) Given below are some proceeding that you can follow to minimize the energy crisis in today era.

- A. Using bulbs made out of LED to illuminate the house.
- B. Using a table lamp to read books in the night.
- C. Switch off the refrigerator from 6.30 pm to 9.30 pm.
- D. Family members ironing clothes randomly.

The statements which contribute to conserve energy out of the above are,

- 1) A and B only.
- 2) A, B and C
- 3) A and C only.
- 4) A, B, C and D

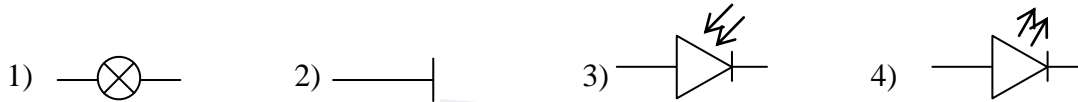
(4)



What would be observed if the light depending resistor is covered with a hand,

- 1) The millimeter will deflect to the opposite direction.
- 2) The brightness of the bulb will reduce.
- 3) Bulb still turn off.
- 4) No change will be observed in the bulb or in the ammeter.

(5) The symbol of LED is,



(6) The device, that can be used to vary the electric current of circuit continuously is,

- 1) Switch
- 2) Variable resistor
- 3) Rheostat
- 4) Fixed resistor

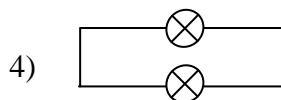
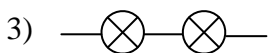
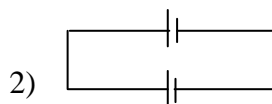
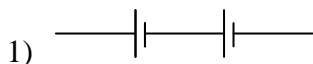
(7) The strength of an electromagnet depends on,

- 1) The type of core in the coil.
- 2) The electric current flowing through the coil.
- 3) The number of turns of the coil.
- 4) All of the above

(8) The correct statement about heating effect of electric current.

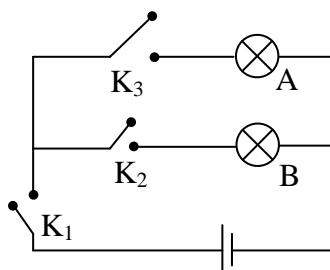
- 1) Transformation of electric energy to light energy can be observed.
- 2) Heating effect of an electric current depends on the resistance.
- 3) Heating effect of an electric current doesn't depend on the current flowing through a conductor.
- 4) Copper wire is heated more than the Nichrome wire.

(9) The diagram that shows the parallel cell system is,



(10) What are the keys (switches) in the circuit that should be closed to light bulb A only?

- 1) K_1 and K_3 only
- 2) K_3 and K_2 only
- 3) K_3 only
- 4) K_1 , K_2 and K_3 keys



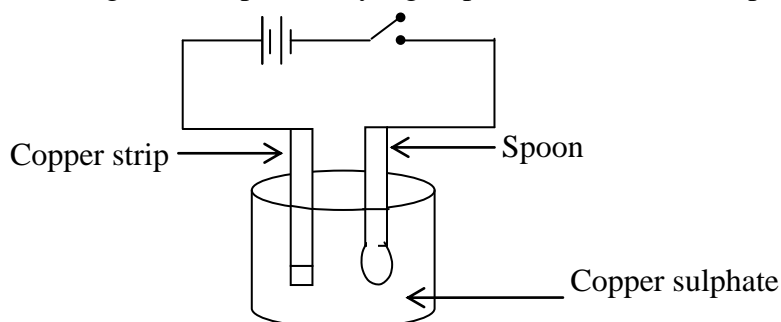
Part II

- Answer all questions.

- (1)
 - a) What do you mean by series connection?
 - b) Draw a circuit with symbols by using following devices.

1) 3 bulbs	2) One switch
3) 2 dry cells	4) Connecting wires
 - c) State 2 situations where simple electric circuits are used in daily life.
 - b) Name two types of keys and draw one of them.
 - e) What is the difference between permanent resistors and variable resistors?

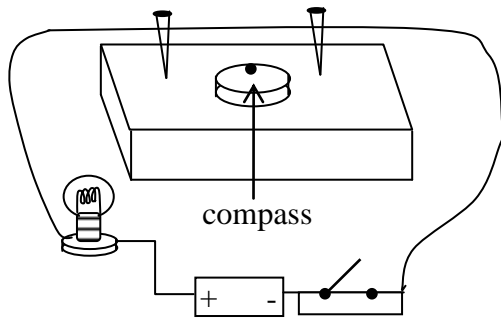
(2) Following is a set up made by a group of students for an experiment.



- a) Which product of electricity is demonstrated by this set up?
- b) State 2 things that you should consider when preparing the above setup.
- c) Write 2 observations of this experiment.

- d) How do we name this process?
 e) Write an instance where we use this method.

(3)



- a) Which product of electricity is demonstrated by this set up?
 b) Write down a difference between permanent magnet and temporary magnet.
 c) i) Briefly explain the way of affect the electric current for the strength od an electromagnet
 ii) Design an experiment to show the effect of that factor.

(4)

- a) What do you mean by resistance?
 b) Name the SI unit of resistance.
 c) Write the 3 factors which are affect for the resistance on a conductor.
 d) Write 2 instances where heating effect of electricity is used in day today life.
 e) Write down two methods which we use to reduce the heating effect of electricity in some appliances.