

Gatitu girl's secondary school

Form 2 physics tune up exam term 2 2015

Name.....adno.....

1. State two advantages of an alkaline battery over a lead acid battery (2 mks)
2. A car battery requires topping up with distilled water occasionally. Explain why this is necessary and why distilled water is used. (2 marks)
3. How can a gold leaf electroscope be used to distinguish between a conductor and a an insulator (1mk)
4. Explain how polarization reduces current in simple cell. (3 mark)
5. In the circuit diagram shown in fig. 12, the lamps are Identical and the cells are also identical.

Figure 12.

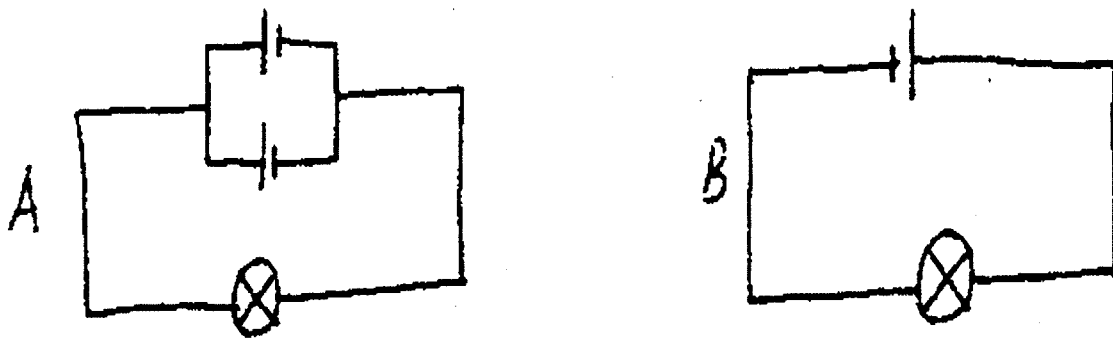
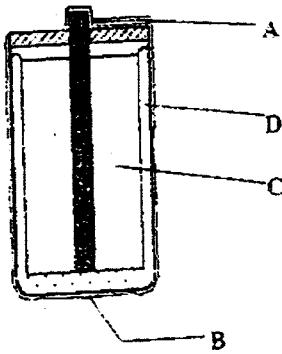


Fig. 12

State with reason, in which circuit the lamp will be lit for longer period. (3 marks)

6. The figure below shows the features of a dry cell (Luclanche'). Use the information in the figure to answer question 1 and 2



State the polarities of the parts labeled A and B. (2mk)

A.....

B.....

Name the chemical substance in the parts labeled C and D (2mks)

C.....

D.....

7. State a reason why the caps of the cells of a lead- acid battery are opened when charging the battery. (1 mark)

8. Define the term Ampere as applied in current electricity. (2mks)

9. In an electric circuit current of 2A flows through a point in 0.5 s.

a) Calculate the quantity of charge flowing through the point. 3mks

b) Calculate the number of electrons that flow through the point. 3mks
(Take charge per electron to be equal to 1.6×10^{-19} .)

10. State three ways in which you can charge the air. 3mks

11. State three applications of electrostatics 3mks

XX