

Y12 Applied Technology Worksheet # 2

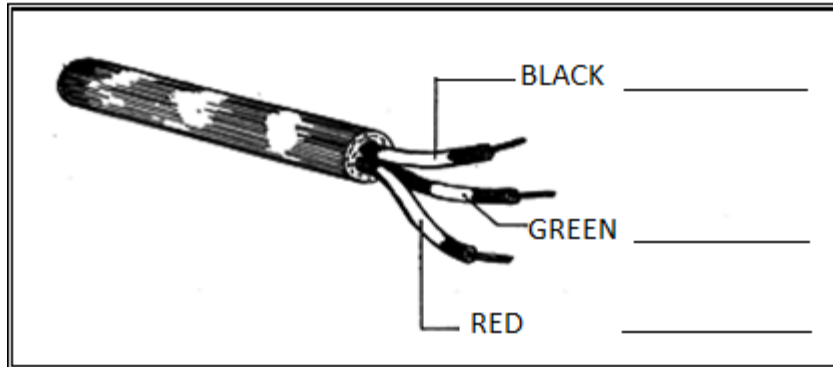
Instruction: Please do attempt this at the back of your exercise book.

QUESTION 2 ELECTRICAL

(10 marks)

(a) Differentiate between **Alternating** and **Direct** current. (2 marks)

(b) (i) Label the wires represented by BLACK, GREEN and RED.



Source: *Year 12 Applied Technology*, Ministry of Education, 2012.

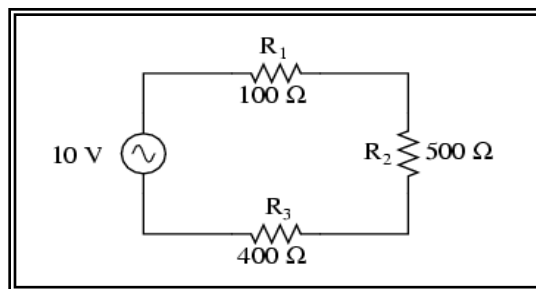
(3 marks)

(ii) State **one** advantage of a parallel circuit. (1 mark)

(1 mark)

(c) Ohm's law is the most important basic law of electricity. It defines the relationship between the three fundamental electrical quantities: voltage and resistance.

Study the diagram below and answer the following questions.



Adapted from: *Year 12 Applied Technology*, Ministry of Education, 2012.

(i) Calculate the total resistance of the circuit. (2 marks)

(2 marks)

(ii) Calculate the total current through the circuit. (2 marks)

(2 marks)

