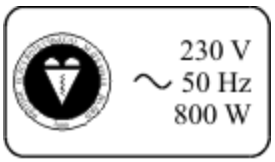
Practice Question Set For GCSE
Subject : Physics
Paper-1 Topic: GCSE Triple Science_Electricity (Standard Demand Questions)

Merit Minds
www.merit-minds.com
Exam Preparation and Free Resources

Name of the Student:_____
Max. Marks : 18 Marks **Time : 18 Minutes**

Q1.

The information plate on a hairdrier is shown.



(a) What is the power rating of the hairdrier?

_____

(1)

(b) (i) Write down the equation which links current, power and voltage.

_____

(1)

(ii) Calculate the current in amperes, when the hairdrier is being used. Show clearly how you work out your answer.

_____

_____

_____

_____

Current = _____ amperes

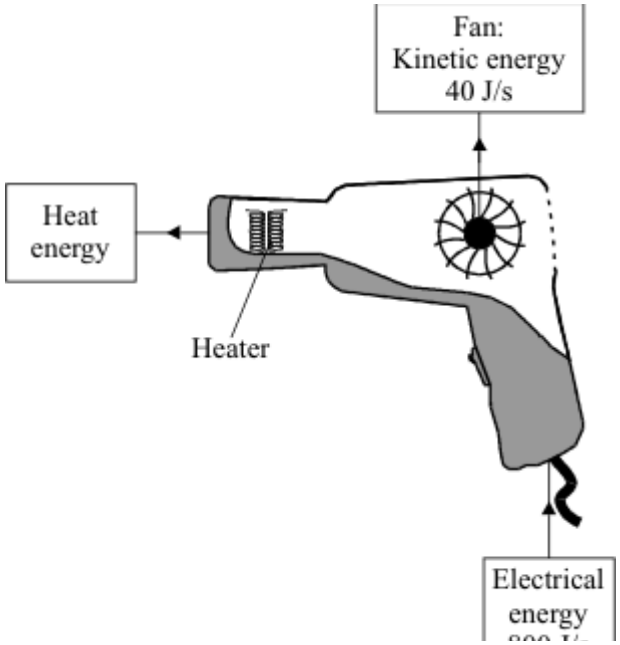
(2)

(iii) Which **one** of the following fuses, 3A, 5A or 13A, should you use with this hairdrier?

_____

(1)

(c) The hairdrier transfers electrical energy to heat energy and kinetic energy.



Calculate the efficiency of the hairdrier in transferring electrical energy into heat energy.

_____

_____

_____

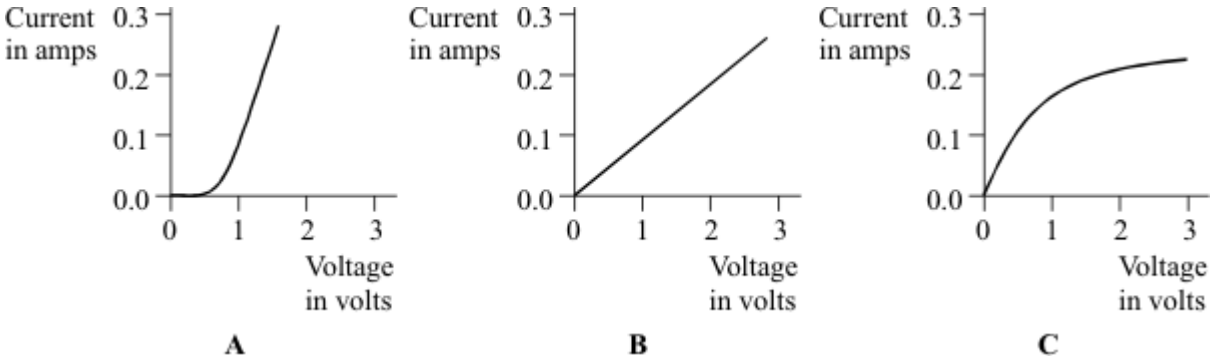
Efficiency = _____

(2)

(Total 7 marks)

Q2.

(a) The diagram shows the voltage-current graphs for three different electrical components.



Which **one** of the components **A**, **B** or **C** could be a 3 volt filament lamp? Explain the reason for your choice.

_____

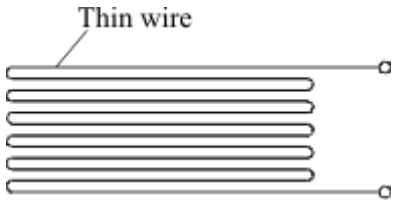
_____

_____

_____

(3)

(b) Using the correct symbols draw a circuit diagram to show how a battery, ammeter and voltmeter can be used to find the resistance of the wire shown.



(3)

(c) When correctly connected to a 9 volt battery the wire has a current of 0.30 amperes flowing through it.

(i) Give the equation that links current, resistance and voltage.

_____

(1)

(ii) Calculate the resistance of the wire. Show clearly how you work out your answer and give the unit.

_____

_____

Resistance = _____

(3)

(iii) When the wire is heated, the current goes down to 0.26 amperes. State how the resistance of the wire has changed.

_____

_____

(1)

(Total 11 marks)