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

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Exam Preparation and Free Resources

Name of the Student:_____
Max. Marks : 22 Marks **Time : 22 Minutes**

Q1.

State and explain the advantages and disadvantages of using nuclear power stations to produce electricity.

_____

_____

_____

_____

_____

_____

_____

_____

(Total 4 marks)

Q2.

When you transfer *energy* to a shopping trolley, the amount of *work done* depends on the *force* used and the *distance moved*.

Complete the table by using the correct units from the box.

joule (J)	metre (m)	newton (N)

The first one has been done for you.

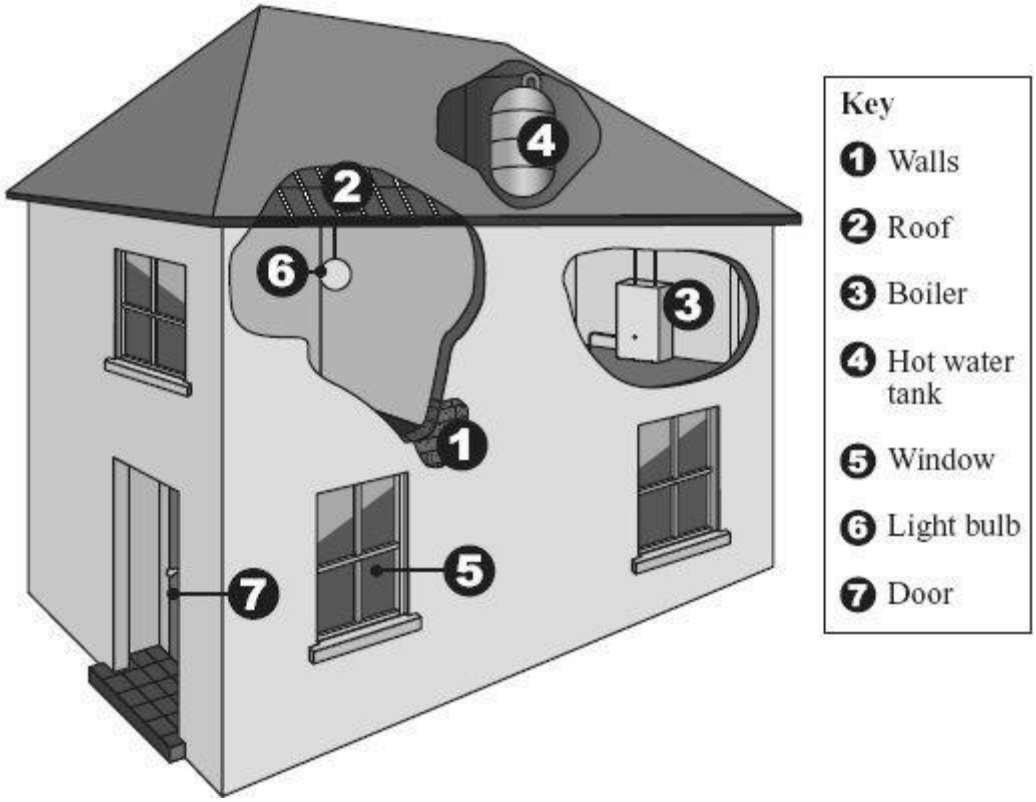
Quantity	Unit

energy (transferred)	joule
force	
distance (moved)	
work done	

(Total 2 marks)

Q3.

The drawing shows parts of a house where it is possible to reduce the amount of energy lost.



(a) Give **one** way in which the amount of energy lost can be reduced from each of the following parts of the house.

1, **2** and **4** _____

5 _____

7 _____

(3)

(b) Energy consumption can be reduced by using a more efficient boiler or more efficient light bulbs.

What is meant by a *more efficient* light bulb?

_____

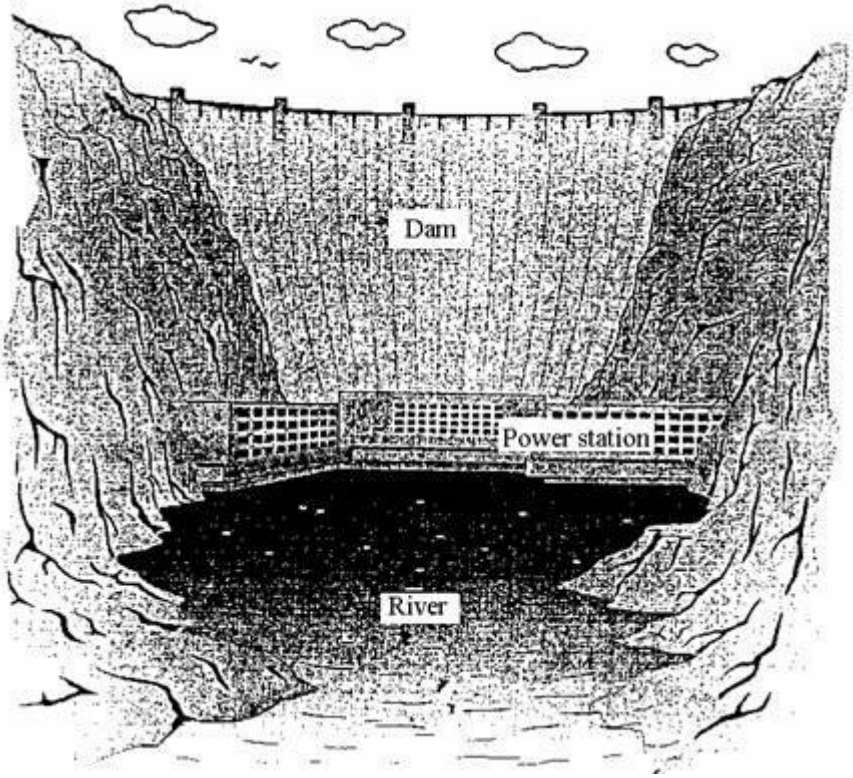
_____

(1)

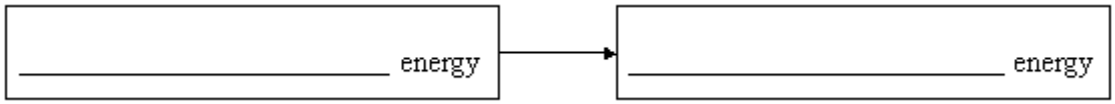
(Total 4 marks)

Q4.

The drawing shows a hydro-electric dam. Water from the top of the dam flows through pipes to the power station at the bottom of the dam.



(a) Complete the following boxes to show the **useful** energy transfer which occurs as the water flows through the pipes **to** the power station.



(2)

(b) The electricity generated by the power station is transmitted over long distances. Before this happens its voltage is increased by using a step-up transformer.

State and explain **one** advantage and **one** disadvantage of transmitting electricity at high voltage.

Advantage _____

_____

_____

_____

Disadvantage _____

_____

_____

_____

(4)

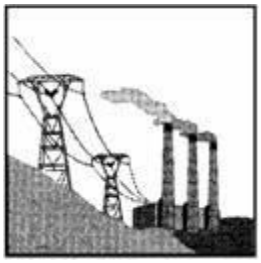
(Total 6 marks)

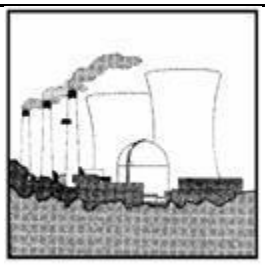
Q5.

Electricity may be produced from a number of different energy resources.

(i) Complete the table below.

The first one has been done for you.

Device	Energy resource	Useful energy transfer from resource
Coal-fired power station 	Coal	Chemical → electrical
Hydroelectric power station 	Stored water	_____ → electrical
Solar cell in calculator 	Sun	_____ → electrical
Wind turbine 	Wind	_____ → electrical
Gas-fired power station	Gas	_____ → electrical

(4)

(ii) Give **one** of the five energy resources opposite, which is **not** classified as renewable.

_____

(1)

(iii) State another non-renewable energy resource.

_____

(1)

(Total 6 marks)