Practice Question Set For GCSE
Subject : Physics
Paper-1 Topic: Energy (High Demand)

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Name of the Student:_____
Max. Marks : 20 Marks **Time : 20 Minutes**

Q1.

(a) Explain how energy is produced in the Sun.

_____

_____

_____

_____

(3)

(b) Read the following article that appeared in a magazine.

"Conservation of energy is important in today's society. Energy sources, such as oil and coal, which have been used for the development of an industrial society, cannot be relied upon as heavily in the future. Renewable energy sources cannot provide such large quantities of energy for society without causing problems."

(i) Give **two** reasons why oil should not be relied on as a major source of energy for the future.

1. _____

_____

2. _____

_____

(2)

(ii) Energy from the wind is a renewable energy resource. State **three** problems which may arise if the wind were to be used to meet the energy requirements of a large industrial city in Britain.

1. _____

_____

_____

2. _____

_____

_____

3. _____

_____

_____

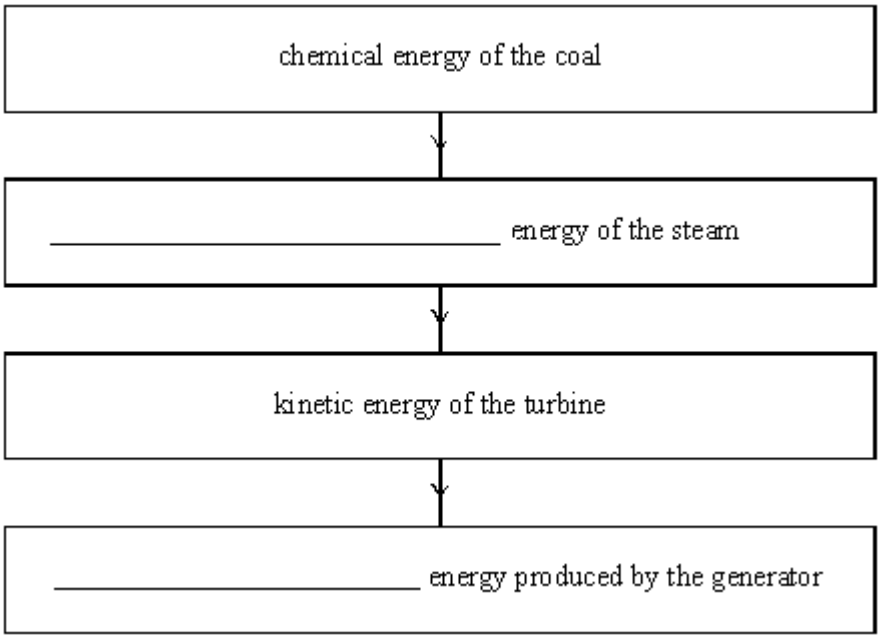
(3)

(Total 8 marks)

Q2.

(a) Most electricity in Britain is generated by coal fired power stations.

Complete the sequence of useful energy transfers which take place in the power station.



(1)

(b) The diagram shows a wind turbine which is used to produce electricity using energy from the wind.

(i) What is the source of energy which creates winds?

_____

(1)

(ii) Explain the advantage of using a wind turbine to produce electricity.

_____

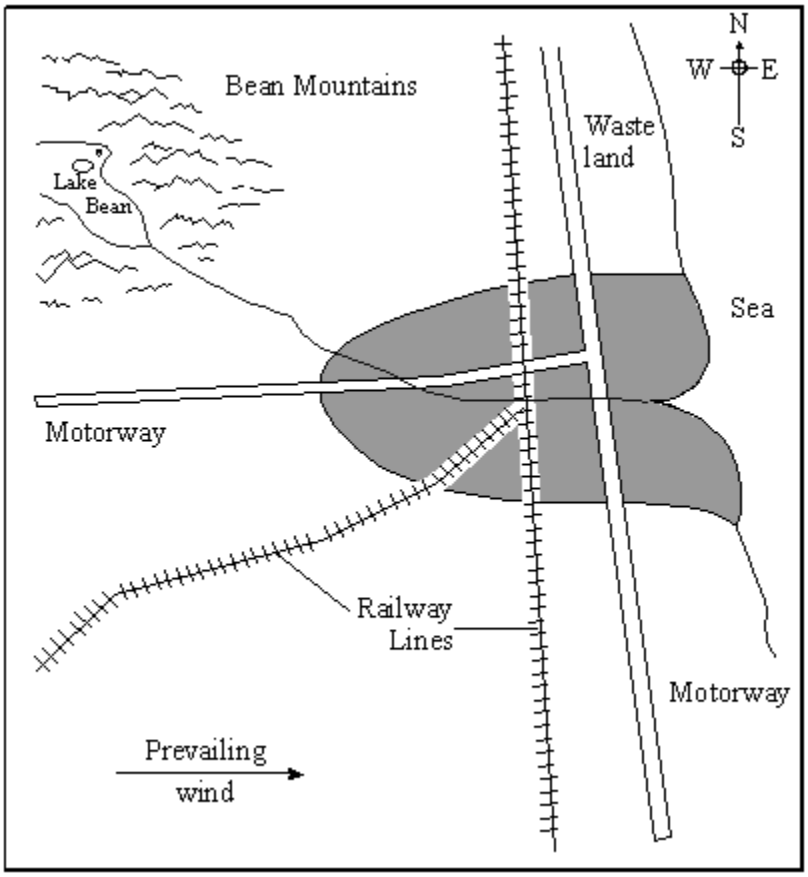
_____

(2)

(Total 4 marks)

Q3.

The map below shows an industrial region (shaded).



The prevailing wind is from the west. There is a nearby mountainous area, from which a river flows through the region. The major road and rail links are shown.

A power station is to be built to supply electrical energy to the region. The energy will be for a range of domestic and industrial uses.

The choice is between a coal fired power station, wind turbines and a hydroelectric scheme.

Three local groups each support a different option. Choose which option you would support and justify your choice by making reference to the financial, social and environmental implications of your choice compared with those of the alternative systems.

(Total 8 marks)