

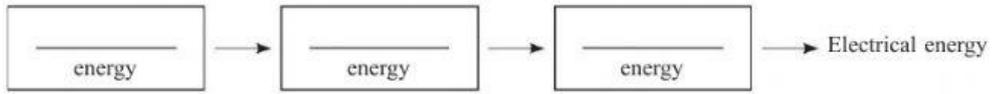
**Instructions:** Answer the following questions.

- 1 (a) \_\_\_\_\_ are energy sources that can be sustained and managed properly, will be replaced continuously and will never run out.  
 (b) \_\_\_\_\_ are energy sources that cannot be replaced and will finally be used up.
- 2 Match correctly the types of power stations.

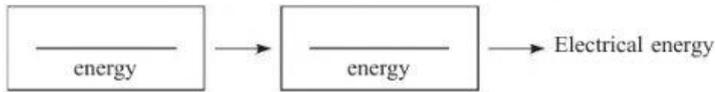
(a) Fuel such as petroleum, diesel coal or natural gas is burnt to boil water to produce steam which rotates the turbine. The turbine rotates the generators to produce electrical energy.	●	● Biomass power station
(b) The biomass produces methane that boils water into steam to rotate the turbine. The turbine rotates the generators to produce electricity.	●	● Thermal power station
(c) The moving air or the wind moves the blade. The blade rotates the turbine. The turbine rotates the generator to produce electrical energy.	●	● Hydroelectric power station
(d) Water from a dam rotates a turbine. The turbine rotates the generators to produce electrical energy.	●	● Wind energy power station
(e) The waves cause the sea level to rise and compress the air. The expansion of compressed air rotates the turbine. The turbine rotates the generators to produce electrical energy.	●	● Nuclear energy power station
(f) The solar panel absorbs light energy directly from the Sun and converts it into electrical energy.	●	● Wave energy power station
(g) The nuclear fission (reaction) of uranium in a nuclear reactor is used to boil water to produce steam which rotates the turbine. The turbine rotates the generators to produce electrical energy.	●	● Solar energy power station

3 Complete the energy changes that take place in an electrical generator.

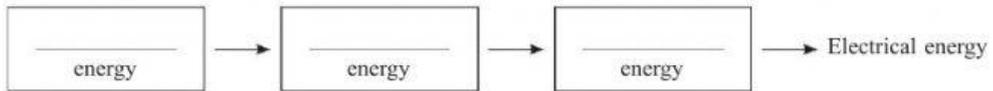
(a) Thermal/gas turbine/diesel generator



(b) Hydroelectric generator

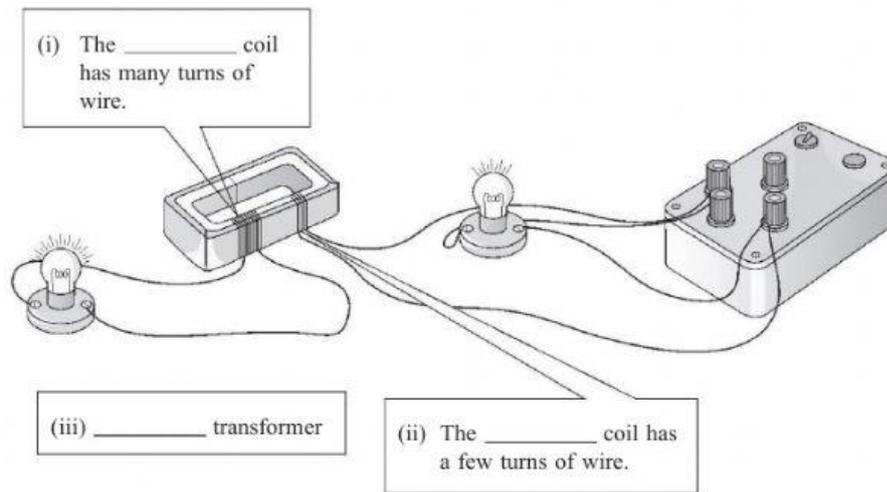


(c) Nuclear generator

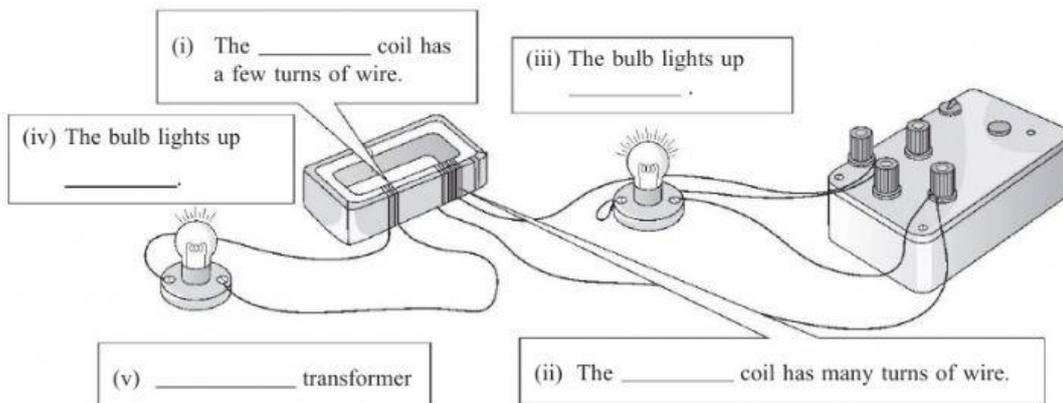


4 Fill in the blanks with suitable words about transformers.

(a)



(b)



(c) A transformer is used to \_\_\_\_\_ or \_\_\_\_\_ the voltage of an alternating current.