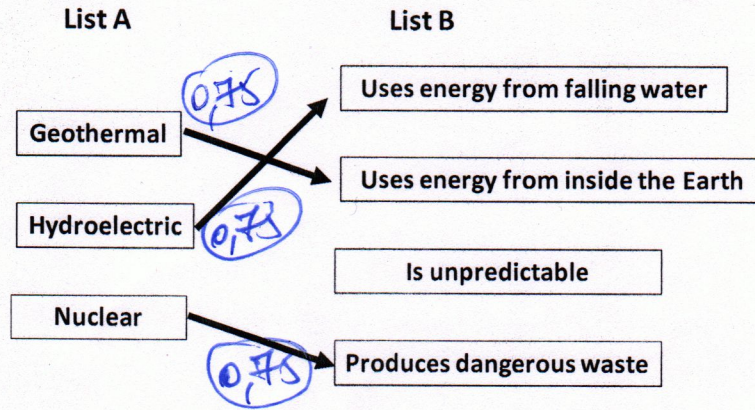


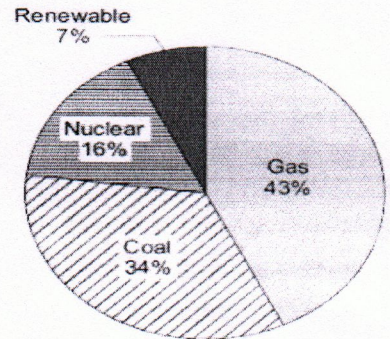
Exam : First Exam  
 Level : 3<sup>rd</sup> year Automation  
 Module : Renewable Energies  
 Saison : 2023/2024  
 Duration : 30 min

First & Last Name: Correction of the Exam

Q1(2,25 Points): Draw one line from each energy source in List A to the statement about the energy source in List B.



Q2 (2 Points): The pie chart shows the proportions of electricity generated from different energy sources. Calculate the percentage of electricity generated using fossil fuels.



*01*  
 Coal and gas are fossil fuels, so the percentage of electricity generated using fossil fuels is:  $34\% + 43\% = 77\%$  *01*

Q3 (3 Point): Complete the following sentence:

"In some types of power station, fossil fuels are burned to heat **gas** to produce steam"

Q4 (2,25 Point): Use words from the box to match the correct energy source to each of the descriptions given in the table.

	biofuel	coal	geothermal	nuclear	waves
Description	Energy source				
Energy from the Earth's core is used to heat water.			geothermal		
Fission of uranium nuclei is used to heat water.				nuclear	
Gases from rotting plant material are burned to heat water.	biofuel				

*Handwritten marks: 0,75 next to geothermal, nuclear, and biofuel.*

Q5 (3 Point): Why is it better to use more renewable energy resources rather than non-renewable resources ?  
 Non-renewable fuels cause pollution (or reverse) conserve/limit use of coal/gas/oil; so supplies last longer/renewable sources can be replaced.

**Q6 (2 Points):** Coal, gas, oil and wood are all examples of fuels.

Write the names of these fuels in the table below to show which are renewable and which are non-renewable.

Renewable	Non-Renewable
Wood <b>OK</b>	Coal <b>OK</b>
	Gas <b>OK</b>
	Oil <b>OK</b>

**Q7 (2,5 Points):** The list below shows energy resources which are not fuels: **geothermal, nuclear, solar, tides, wind**. Write the names of the energy resources in the table below to show which are renewable and which are non-renewable.

Renewable	Non-Renewable
Geothermal <b>OK</b>	Nuclear <b>OK</b>
Solar <b>OK</b>	
Tides <b>OK</b>	
Wind <b>OK</b>	

**Q8 (3 Points):** Use the correct answer from the box to complete each sentence.

**electrical    gravitational potential    kinetic    nuclear    sound**

- \* The water in the high level reservoir stores **gravitational potential** energy. **OK**
- \* The flowing water has **kinetic** energy. **OK**
- \* The water turns the turbine which is connected to the generator.
- \* The generator produces some **sound**, this is wasted energy. **OK**

Good luck

Dr. RACHEDI Mohamed Yacine